$Arg^{26}Lys^{27,34}$-bis-(Aspa-ALit)-GLP-1(7-36); $Arg^{34}Lys^{27,26}$-bis-(Aspa-ALit)-GLP-1(7-36);
$Arg^{26}Lys^{27,34}$-bis-(Aspa-ALit)-GLP-1(7-37); $Arg^{34}Lys^{27,26}$-bis-(Aspa-ALit)-GLP-1(7-37);
$Arg^{26}Lys^{27,34}$-bis-(Aspa-ALit)-GLP-1(7-38); $Arg^{34}Lys^{27,26}$-bis-(Aspa-ALit)-GLP-1(7-38);
$Arg^{26}Lys^{27,34}$-bis-(Aspa-ALit)-GLP-1(7-39); $Arg^{34}Lys^{27,26}$-bis-(Aspa-ALit)-GLP-1(7-39);
$Gly^{8}Lys^{26,34}$-bis-(Aspa-ALit)-GLP-1(7-36); $Gly^{8}Lys^{26,34}$-bis-(Aspa-ALit)-GLP-1(7-37); $Gly^{8}Lys^{26,34}$-bis-(Aspa-ALit)-GLP-1(7-38); $Gly^{8}Lys^{26,34}$-bis-(Aspa-ALit)-GLP-1(7-39)
$Gly^{8}Arg^{26}Lys^{34,36}$-bis-(Aspa-ALit)-GLP-1(7-36); $Gly^{8}Arg^{34}Lys^{26,36}$-bis-(Aspa-ALit)-GLP-1(7-36);
$Gly^{8}Arg^{26}Lys^{34,36}$-bis-(Aspa-ALit)-GLP-1(7-37); $Gly^{8}Arg^{34}Lys^{26,36}$-bis-(Aspa-ALit)-GLP-1(7-37);
$Gly^{8}Arg^{26}Lys^{34,37}$-bis-(Aspa-ALit)-GLP-1(7-37); $Gly^{8}Arg^{34}Lys^{26,37}$-bis-(Aspa-ALit)-GLP-1(7-37);
$Gly^{8}Arg^{26}Lys^{34,38}$-bis-(Aspa-ALit)-GLP-1(7-38); $Gly^{8}Arg^{34}Lys^{26,38}$-bis-(Aspa-ALit)-GLP-1(7-38);
$Gly^{8}Arg^{26,34}Lys^{36,38}$-bis-(Aspa-ALit)-GLP-1(7-38); $Gly^{8}Arg^{26}Lys^{34,39}$-bis-(Aspa-ALit)-GLP-1(7-39);
$Gly^{8}Arg^{34}Lys^{26,39}$-bis-(Aspa-ALit)-GLP-1(7-39); $Gly^{8}Arg^{26,34}Lys^{36,39}$-bis-(Aspa-ALit)-GLP-1(7-39);
$Val^{8}Lys^{26,34}$-bis-(Aspa-ALit)-GLP-1(7-36); $Val^{8}Lys^{26,34}$-bis-(Aspa-ALit)-GLP-1(7-37); $Val^{8}Lys^{26,34}$-bis-(Aspa-ALit)-GLP-1(7-38); $Val^{8}Lys^{26,34}$-bis-(Aspa-ALit)-GLP-1(7-39)
$Val^{8}Arg^{26}Lys^{34,36}$-bis-(Aspa-ALit)-GLP-1(7-36); $Val^{8}Arg^{34}Lys^{26,36}$-bis-(Aspa-ALit)-GLP-1(7-36);
$Val^{8}Arg^{26}Lys^{34,36}$-bis-(Aspa-ALit)-GLP-1(7-37); $Val^{8}Arg^{34}Lys^{26,36}$-bis-(Aspa-ALit)-GLP-1(7-37);
$Val^{8}Arg^{26}Lys^{34,37}$-bis-(Aspa-ALit)-GLP-1(7-37); $Val^{8}Arg^{34}Lys^{26,37}$-bis-(Aspa-ALit)-GLP-1(7-37);
$Val^{8}Arg^{26}Lys^{34,38}$-bis-(Aspa-ALit)-GLP-1(7-38); $Val^{8}Arg^{34}Lys^{26,38}$-bis-(Aspa-ALit)-GLP-1(7-38);
$Val^{8}Arg^{26,34}Lys^{36,38}$-bis-(Aspa-ALit)-GLP-1(7-38); $Val^{8}Arg^{26}Lys^{34,39}$-bis-(Aspa-ALit)-GLP-1(7-39);
$Val^{8}Arg^{34}Lys^{26,39}$-bis-(Aspa-ALit)-GLP-1(7-39); $Val^{8}Arg^{26,34}Lys^{36,39}$-bis-(Aspa-ALit)-GLP-1(7-39);
$Ser^{8}Lys^{26,34}$-bis-(Aspa-ALit)-GLP-1(7-36); $Ser^{8}Lys^{26,34}$-bis-(Aspa-ALit)-GLP-1(7-37); $Ser^{8}Lys^{26,34}$-bis-(Aspa-ALit)-GLP-1(7-38); $Ser^{8}Lys^{26,34}$-bis-(Aspa-ALit)-GLP-1(7-39)
$Ser^{8}Arg^{26}Lys^{34,36}$-bis-(Aspa-ALit)-GLP-1(7-36); $Ser^{8}Arg^{34}Lys^{26,36}$-bis-(Aspa-ALit)-GLP-1(7-36);
$Ser^{8}Arg^{26}Lys^{34,36}$-bis-(Aspa-ALit)-GLP-1(7-37); $Ser^{8}Arg^{34}Lys^{26,36}$-bis-(Aspa-ALit)-GLP-1(7-37);
$Ser^{8}Arg^{26}Lys^{34,37}$-bis-(Aspa-ALit)-GLP-1(7-37); $Ser^{8}Arg^{34}Lys^{26,37}$-bis-(Aspa-ALit)-GLP-1(7-37);
$Ser^{8}Arg^{26}Lys^{34,38}$-bis-(Aspa-ALit)-GLP-1(7-38); $Ser^{8}Arg^{34}Lys^{26,38}$-bis-(Aspa-ALit)-GLP-1(7-38);
$Ser^{8}Arg^{26,34}Lys^{36,38}$-bis-(Aspa-ALit)-GLP-1(7-38); $Ser^{8}Arg^{26}Lys^{34,39}$-bis-(Aspa-ALit)-GLP-1(7-39);
$Ser^{8}Arg^{34}Lys^{26,39}$-bis-(Aspa-ALit)-GLP-1(7-39); $Ser^{8}Arg^{26,34}Lys^{36,39}$-bis-(Aspa-ALit)-GLP-1(7-39);
$Thr^{8}Lys^{26,34}$-bis-(Aspa-ALit)-GLP-1(7-36); $Thr^{8}Lys^{26,34}$-bis-(Aspa-ALit)-GLP-1(7-37); $Thr^{8}Lys^{26,34}$-bis-(Aspa-ALit)-GLP-1(7-38); $Thr^{8}Lys^{26,34}$-bis-(Aspa-ALit)-GLP-1(7-39)
$Thr^{8}Arg^{26}Lys^{34,36}$-bis-(Aspa-ALit)-GLP-1(7-36); $Thr^{8}Arg^{34}Lys^{26,36}$-bis-(Aspa-ALit)-GLP-1(7-36);
$Thr^{8}Arg^{26}Lys^{34,36}$-bis-(Aspa-ALit)-GLP-1(7-37); $Thr^{8}Arg^{34}Lys^{26,36}$-bis-(Aspa-ALit)-GLP-1(7-37);
$Thr^{8}Arg^{26}Lys^{34,37}$-bis-(Aspa-ALit)-GLP-1(7-37); $Thr^{8}Arg^{34}Lys^{26,37}$-bis-(Aspa-ALit)-GLP-1(7-37);
$Thr^{8}Arg^{26}Lys^{34,38}$-bis-(Aspa-ALit)-GLP-1(7-38); $Thr^{8}Arg^{34}Lys^{26,38}$-bis-(Aspa-ALit)-GLP-1(7-38);

$Thr^{8}Arg^{26,34}Lys^{36,38}$-bis-(Aspa-ALit)-GLP-1(7-38); $Thr^{8}Arg^{26}Lys^{34,39}$-bis-(Aspa-ALit)-GLP-1(7-39); $Thr^{8}Arg^{34}Lys^{26,39}$-bis-(Aspa-ALit)-GLP-1(7-39); $Thr^{8}Arg^{26,34}Lys^{36,39}$-bis-(Aspa-ALit)-GLP-1(7-39); $Lys^{26,34}$-bis-(Glyc-ADod)-GLP-1(7-36); $Lys^{26,34}$-bis-(Glyc-ADod)-GLP-1(7-37); $Lys^{26,34}$-bis-(Glyc-ADod)-GLP-1(7-38); $Lys^{26,34}$-bis-(Glyc-ADod)-GLP-1(7-39)

$Arg^{26}Lys^{34,36}$-bis-(Glyc-ADod)-GLP-1(7-36); $Arg^{34}Lys^{26,36}$-bis-(Glyc-ADod)-GLP-1(7-36); $Arg^{26}Lys^{34,36}$-bis-(Glyc-ADod)-GLP-1(7-37); $Arg^{34}Lys^{26,36}$-bis-(Glyc-ADod)-GLP-1(7-37); $Arg^{26}Lys^{34,37}$-bis-(Glyc-ADod)-GLP-1(7-37); $Arg^{34}Lys^{26,37}$-bis-(Glyc-ADod)-GLP-1(7-37); $Arg^{26}Lys^{34,39}$-bis-(Glyc-ADod)-GLP-1(7-39); $Arg^{34}Lys^{26,39}$-bis-(Glyc-ADod)-GLP-1(7-39); $Arg^{26,34}Lys^{36,39}$-bis-(Glyc-ADod)-GLP-1(7-39);

$Arg^{26}Lys^{18,34}$-bis-(Glyc-ADod)-GLP-1(7-36); $Arg^{34}Lys^{18,26}$-bis-(Glyc-ADod)-GLP-1(7-36); $Arg^{26}Lys^{18,34}$-bis-(Glyc-ADod)-GLP-1(7-37); $Arg^{34}Lys^{18,26}$-bis-(Glyc-ADod)-GLP-1(7-37); $Arg^{26}Lys^{18,34}$-bis-(Glyc-ADod)-GLP-1(7-38); $Arg^{34}Lys^{18,26}$-bis-(Glyc-ADod)-GLP-1(7-38); $Arg^{26}Lys^{18,34}$-bis-(Glyc-ADod)-GLP-1(7-39); $Arg^{34}Lys^{18,26}$-bis-(Glyc-ADod)-GLP-1(7-39);

$Arg^{26}Lys^{23,34}$-bis-(Glyc-ADod)-GLP-1(7-36); $Arg^{34}Lys^{23,26}$-bis-(Glyc-ADod)-GLP-1(7-36); $Arg^{26}Lys^{23,34}$-bis-(Glyc-ADod)-GLP-1(7-37); $Arg^{34}Lys^{23,26}$-bis-(Glyc-ADod)-GLP-1(7-37); $Arg^{26}Lys^{23,34}$-bis-(Glyc-ADod)-GLP-1(7-38); $Arg^{34}Lys^{23,26}$-bis-(Glyc-ADod)-GLP-1(7-38); $Arg^{26}Lys^{23,34}$-bis-(Glyc-ADod)-GLP-1(7-39); $Arg^{34}Lys^{23,26}$-bis-(Glyc-ADod)-GLP-1(7-39);

$Arg^{26}Lys^{27,34}$-bis-(Glyc-ADod)-GLP-1(7-36); $Arg^{34}Lys^{27,26}$-bis-(Glyc-ADod)-GLP-1(7-36); $Arg^{26}Lys^{27,34}$-bis-(Glyc-ADod)-GLP-1(7-37); $Arg^{34}Lys^{27,26}$-bis-(Glyc-ADod)-GLP-1(7-37); $Arg^{26}Lys^{27,34}$-bis-(Glyc-ADod)-GLP-1(7-38); $Arg^{34}Lys^{27,26}$-bis-(Glyc-ADod)-GLP-1(7-38); $Arg^{26}Lys^{27,34}$-bis-(Glyc-ADod)-GLP-1(7-39); $Arg^{34}Lys^{27,26}$-bis-(Glyc-ADod)-GLP-1(7-39);

$Gly^{8}Lys^{26,34}$-bis-(Glyc-ADod)-GLP-1(7-36); $Gly^{8}Lys^{26,34}$-bis-(Glyc-ADod)-GLP-1(7-37); $Gly^{8}Lys^{26,34}$-bis-(Glyc-ADod)-GLP-1(7-38); $Gly^{8}Lys^{26,34}$-bis-(Glyc-ADod)-GLP-1(7-39)

$Gly^{8}Arg^{26}Lys^{34,36}$-bis-(Glyc-ADod)-GLP-1(7-36); $Gly^{8}Arg^{34}Lys^{26,36}$-bis-(Glyc-ADod)-GLP-1(7-36); $Gly^{8}Arg^{26}Lys^{34,36}$-bis-(Glyc-ADod)-GLP-1(7-37); $Gly^{8}Arg^{34}Lys^{26,36}$-bis-(Glyc-ADod)-GLP-1(7-37); $Gly^{8}Arg^{26}Lys^{34,37}$-bis-(Glyc-ADod)-GLP-1(7-37); $Gly^{8}Arg^{34}Lys^{26,37}$-bis-(Glyc-ADod)-GLP-1(7-37); $Gly^{8}Arg^{26}Lys^{34,38}$-bis-(Glyc-ADod)-GLP-1(7-38); $Gly^{8}Arg^{34}Lys^{26,38}$-bis-(Glyc-ADod)-GLP-1(7-38); $Gly^{8}Arg^{26,34}Lys^{36,38}$-bis-(Glyc-ADod)-GLP-1(7-38); $Gly^{8}Arg^{26}Lys^{34,39}$-bis-(Glyc-ADod)-GLP-1(7-39); $Gly^{8}Arg^{34}Lys^{26,39}$-bis-(Glyc-ADod)-GLP-1(7-39); $Gly^{8}Arg^{26,34}Lys^{36,39}$-bis-(Glyc-ADod)-GLP-1(7-39);

$Val^{8}Lys^{26,34}$-bis-(Glyc-ADod)-GLP-1(7-36); $Val^{8}Lys^{26,34}$-bis-(Glyc-ADod)-GLP-1(7-37); $Val^{8}Lys^{26,34}$-bis-(Glyc-ADod)-GLP-1(7-38); $Val^{8}Lys^{26,34}$-bis-(Glyc-ADod)-GLP-1(7-39)

$Val^{8}Arg^{26}Lys^{34,36}$-bis-(Glyc-ADod)-GLP-1(7-36); $Val^{8}Arg^{34}Lys^{26,36}$-bis-(Glyc-ADod)-GLP-1(7-36); $Val^{8}Arg^{26}Lys^{34,36}$-bis-(Glyc-ADod)-GLP-1(7-37); $Val^{8}Arg^{34}Lys^{26,36}$-bis-(Glyc-ADod)-GLP-1(7-37);

Val^{8}Arg^{26}Lys^{34,37}-bis-(Glyc-ADod)-GLP-1(7-37); Val^{8}Arg^{34}Lys^{26,37}-bis-(Glyc-ADod)-GLP-1(7-37); Val^{8}Arg^{26}Lys^{34,38}-bis-(Glyc-ADod)-GLP-1(7-38); Val^{8}Arg^{34}Lys^{26,38}-bis-(Glyc-ADod)-GLP-1(7-38); Val^{8}Arg^{26,34}Lys^{36,38}-bis-(Glyc-ADod)-GLP-1(7-38); Val^{8}Arg^{26}Lys^{34,39}-bis-(Glyc-ADod)-GLP-1(7-39); Val^{8}Arg^{34}Lys^{26,39}-bis-(Glyc-ADod)-GLP-1(7-39); Val^{8}Arg^{26,34}Lys^{36,39}-bis-(Glyc-ADod)-GLP-1(7-39);

Ser^{8}Lys^{26,34}-bis-(Glyc-ADod)-GLP-1(7-36); Ser^{8}Lys^{26,34}-bis-(Glyc-ADod)-GLP-1(7-37); Ser^{8}Lys^{26,34}-bis-(Glyc-ADod)-GLP-1(7-38); Ser^{8}Lys^{26,34}-bis-(Glyc-ADod)-GLP-1(7-39)

Ser^{8}Arg^{26}Lys^{34,36}-bis-(Glyc-ADod)-GLP-1(7-36); Ser^{8}Arg^{34}Lys^{26,36}-bis-(Glyc-ADod)-GLP-1(7-36); Ser^{8}Arg^{26}Lys^{34,36}-bis-(Glyc-ADod)-GLP-1(7-37); Ser^{8}Arg^{34}Lys^{26,36}-bis-(Glyc-ADod)-GLP-1(7-37); Ser^{8}Arg^{26}Lys^{34,37}-bis-(Glyc-ADod)-GLP-1(7-37); Ser^{8}Arg^{34}Lys^{26,37}-bis-(Glyc-ADod)-GLP-1(7-37); Ser^{8}Arg^{26}Lys^{34,38}-bis-(Glyc-ADod)-GLP-1(7-38); Ser^{8}Arg^{34}Lys^{26,38}-bis-(Glyc-ADod)-GLP-1(7-38); Ser^{8}Arg^{26,34}Lys^{36,38}-bis-(Glyc-ADod)-GLP-1(7-38); Ser^{8}Arg^{26}Lys^{34,39}-bis-(Glyc-ADod)-GLP-1(7-39); Ser^{8}Arg^{34}Lys^{26,39}-bis-(Glyc-ADod)-GLP-1(7-39); Ser^{8}Arg^{26,34}Lys^{36,39}-bis-(Glyc-ADod)-GLP-1(7-39);

Thr^{8}Lys^{26,34}-bis-(Glyc-ADod)-GLP-1(7-36); Thr^{8}Lys^{26,34}-bis-(Glyc-ADod)-GLP-1(7-37); Thr^{8}Lys^{26,34}-bis-(Glyc-ADod)-GLP-1(7-38); Thr^{8}Lys^{26,34}-bis-(Glyc-ADod)-GLP-1(7-39)

Thr^{8}Arg^{26}Lys^{34,36}-bis-(Glyc-ADod)-GLP-1(7-36); Thr^{8}Arg^{34}Lys^{26,36}-bis-(Glyc-ADod)-GLP-1(7-36); Thr^{8}Arg^{26}Lys^{34,36}-bis-(Glyc-ADod)-GLP-1(7-37); Thr^{8}Arg^{34}Lys^{26,36}-bis-(Glyc-ADod)-GLP-1(7-37); Thr^{8}Arg^{26}Lys^{34,37}-bis-(Glyc-ADod)-GLP-1(7-37); Thr^{8}Arg^{34}Lys^{26,37}-bis-(Glyc-ADod)-GLP-1(7-37); Thr^{8}Arg^{26}Lys^{34,38}-bis-(Glyc-ADod)-GLP-1(7-38); Thr^{8}Arg^{34}Lys^{26,38}-bis-(Glyc-ADod)-GLP-1(7-38); Thr^{8}Arg^{26,34}Lys^{36,38}-bis-(Glyc-ADod)-GLP-1(7-38); Thr^{8}Arg^{26}Lys^{34,39}-bis-(Glyc-ADod)-GLP-1(7-39); Thr^{8}Arg^{34}Lys^{26,39}-bis-(Glyc-ADod)-GLP-1(7-39); Thr^{8}Arg^{26,34}Lys^{36,39}-bis-(Glyc-ADod)-GLP-1(7-39);

Lys^{26,34}-bis-(Glyc-ATet)-GLP-1(7-36); Lys^{26,34}-bis-(Glyc-ATet)-GLP-1(7-37); Lys^{26,34}-bis-(Glyc-ATet)-GLP-1(7-38); Lys^{26,34}-bis-(Glyc-ATet)-GLP-1(7-39)

Arg^{26}Lys^{34,36}-bis-(Glyc-ATet)-GLP-1(7-36); Arg^{34}Lys^{26,36}-bis-(Glyc-ATet)-GLP-1(7-36); Arg^{26}Lys^{34,36}-bis-(Glyc-ATet)-GLP-1(7-37); Arg^{34}Lys^{26,36}-bis-(Glyc-ATet)-GLP-1(7-37); Arg^{26}Lys^{34,37}-bis-(Glyc-ATet)-GLP-1(7-37); Arg^{34}Lys^{26,37}-bis-(Glyc-ATet)-GLP-1(7-37); Arg^{26}Lys^{34,39}-bis-(Glyc-ATet)-GLP-1(7-39); Arg^{34}Lys^{26,39}-bis-(Glyc-ATet)-GLP-1(7-39); Arg^{26,34}Lys^{36,39}-bis-(Glyc-ATet)-GLP-1(7-39);

Arg^{26}Lys^{18,34}-bis-(Glyc-ATet)-GLP-1(7-36); Arg^{34}Lys^{18,26}-bis-(Glyc-ATet)-GLP-1(7-36); Arg^{26}Lys^{18,34}-bis-(Glyc-ATet)-GLP-1(7-37); Arg^{34}Lys^{18,26}-bis-(Glyc-ATet)-GLP-1(7-37); Arg^{26}Lys^{18,34}-bis-(Glyc-ATet)-GLP-1(7-38); Arg^{34}Lys^{18,26}-bis-(Glyc-ATet)-GLP-1(7-38); Arg^{26}Lys^{18,34}-bis-(Glyc-ATet)-GLP-1(7-39); Arg^{34}Lys^{18,26}-bis-(Glyc-ATet)-GLP-1(7-39);

$Arg^{26}Lys^{23,34}$-bis-(Glyc-ATet)-GLP-1(7-36); $Arg^{34}Lys^{23,26}$-bis-(Glyc-ATet)-GLP-1(7-36);
$Arg^{26}Lys^{23,34}$-bis-(Glyc-ATet)-GLP-1(7-37); $Arg^{34}Lys^{23,26}$-bis-(Glyc-ATet)-GLP-1(7-37);
$Arg^{26}Lys^{23,34}$-bis-(Glyc-ATet)-GLP-1(7-38); $Arg^{34}Lys^{23,26}$-bis-(Glyc-ATet)-GLP-1(7-38);
$Arg^{26}Lys^{23,34}$-bis-(Glyc-ATet)-GLP-1(7-39); $Arg^{34}Lys^{23,26}$-bis-(Glyc-ATet)-GLP-1(7-39);
$Arg^{26}Lys^{27,34}$-bis-(Glyc-ATet)-GLP-1(7-36); $Arg^{34}Lys^{27,26}$-bis-(Glyc-ATet)-GLP-1(7-36);
$Arg^{26}Lys^{27,34}$-bis-(Glyc-ATet)-GLP-1(7-37); $Arg^{34}Lys^{27,26}$-bis-(Glyc-ATet)-GLP-1(7-37);
$Arg^{26}Lys^{27,34}$-bis-(Glyc-ATet)-GLP-1(7-38); $Arg^{34}Lys^{27,26}$-bis-(Glyc-ATet)-GLP-1(7-38);
$Arg^{26}Lys^{27,34}$-bis-(Glyc-ATet)-GLP-1(7-39); $Arg^{34}Lys^{27,26}$-bis-(Glyc-ATet)-GLP-1(7-39);
$Gly^{8}Lys^{26,34}$-bis-(Glyc-ATet)-GLP-1(7-36); $Gly^{8}Lys^{26,34}$-bis-(Glyc-ATet)-GLP-1(7-37); $Gly^{8}Lys^{26,34}$-bis-(Glyc-ATet)-GLP-1(7-38); $Gly^{8}Lys^{26,34}$-bis-(Glyc-ATet)-GLP-1(7-39)
$Gly^{8}Arg^{26}Lys^{34,36}$-bis-(Glyc-ATet)-GLP-1(7-36); $Gly^{8}Arg^{34}Lys^{26,36}$-bis-(Glyc-ATet)-GLP-1(7-36);
$Gly^{8}Arg^{26}Lys^{34,36}$-bis-(Glyc-ATet)-GLP-1(7-37); $Gly^{8}Arg^{34}Lys^{26,36}$-bis-(Glyc-ATet)-GLP-1(7-37);
$Gly^{8}Arg^{26}Lys^{34,37}$-bis-(Glyc-ATet)-GLP-1(7-37); $Gly^{8}Arg^{34}Lys^{26,37}$-bis-(Glyc-ATet)-GLP-1(7-37);
$Gly^{8}Arg^{26}Lys^{34,38}$-bis-(Glyc-ATet)-GLP-1(7-38); $Gly^{8}Arg^{34}Lys^{26,38}$-bis-(Glyc-ATet)-GLP-1(7-38);
$Gly^{8}Arg^{26,34}Lys^{36,38}$-bis-(Glyc-ATet)-GLP-1(7-38); $Gly^{8}Arg^{26}Lys^{34,39}$-bis-(Glyc-ATet)-GLP-1(7-39);
$Gly^{8}Arg^{34}Lys^{26,39}$-bis-(Glyc-ATet)-GLP-1(7-39); $Gly^{8}Arg^{26,34}Lys^{36,39}$-bis-(Glyc-ATet)-GLP-1(7-39);
$Val^{8}Lys^{26,34}$-bis-(Glyc-ATet)-GLP-1(7-36); $Val^{8}Lys^{26,34}$-bis-(Glyc-ATet)-GLP-1(7-37); $Val^{8}Lys^{26,34}$-bis-(Glyc-ATet)-GLP-1(7-38); $Val^{8}Lys^{26,34}$-bis-(Glyc-ATet)-GLP-1(7-39)
$Val^{8}Arg^{26}Lys^{34,36}$-bis-(Glyc-ATet)-GLP-1(7-36); $Val^{8}Arg^{34}Lys^{26,36}$-bis-(Glyc-ATet)-GLP-1(7-36);
$Val^{8}Arg^{26}Lys^{34,36}$-bis-(Glyc-ATet)-GLP-1(7-37); $Val^{8}Arg^{34}Lys^{26,36}$-bis-(Glyc-ATet)-GLP-1(7-37);
$Val^{8}Arg^{26}Lys^{34,37}$-bis-(Glyc-ATet)-GLP-1(7-37); $Val^{8}Arg^{34}Lys^{26,37}$-bis-(Glyc-ATet)-GLP-1(7-37);
$Val^{8}Arg^{26}Lys^{34,38}$-bis-(Glyc-ATet)-GLP-1(7-38); $Val^{8}Arg^{34}Lys^{26,38}$-bis-(Glyc-ATet)-GLP-1(7-38);
$Val^{8}Arg^{26,34}Lys^{36,38}$-bis-(Glyc-ATet)-GLP-1(7-38); $Val^{8}Arg^{26}Lys^{34,39}$-bis-(Glyc-ATet)-GLP-1(7-39);
$Val^{8}Arg^{34}Lys^{26,39}$-bis-(Glyc-ATet)-GLP-1(7-39); $Val^{8}Arg^{26,34}Lys^{36,39}$-bis-(Glyc-ATet)-GLP-1(7-39);
$Ser^{8}Lys^{26,34}$-bis-(Glyc-ATet)-GLP-1(7-36); $Ser^{8}Lys^{26,34}$-bis-(Glyc-ATet)-GLP-1(7-37); $Ser^{8}Lys^{26,34}$-bis-(Glyc-ATet)-GLP-1(7-38); $Ser^{8}Lys^{26,34}$-bis-(Glyc-ATet)-GLP-1(7-39)
$Ser^{8}Arg^{26}Lys^{34,36}$-bis-(Glyc-ATet)-GLP-1(7-36); $Ser^{8}Arg^{34}Lys^{26,36}$-bis-(Glyc-ATet)-GLP-1(7-36);
$Ser^{8}Arg^{26}Lys^{34,36}$-bis-(Glyc-ATet)-GLP-1(7-37); $Ser^{8}Arg^{34}Lys^{26,36}$-bis-(Glyc-ATet)-GLP-1(7-37);
$Ser^{8}Arg^{26}Lys^{34,37}$-bis-(Glyc-ATet)-GLP-1(7-37); $Ser^{8}Arg^{34}Lys^{26,37}$-bis-(Glyc-ATet)-GLP-1(7-37);
$Ser^{8}Arg^{26}Lys^{34,38}$-bis-(Glyc-ATet)-GLP-1(7-38); $Ser^{8}Arg^{34}Lys^{26,38}$-bis-(Glyc-ATet)-GLP-1(7-38);
$Ser^{8}Arg^{26,34}Lys^{36,38}$-bis-(Glyc-ATet)-GLP-1(7-38); $Ser^{8}Arg^{26}Lys^{34,39}$-bis-(Glyc-ATet)-GLP-1(7-39);
$Ser^{8}Arg^{34}Lys^{26,39}$-bis-(Glyc-ATet)-GLP-1(7-39); $Ser^{8}Arg^{26,34}Lys^{36,39}$-bis-(Glyc-ATet)-GLP-1(7-39);
$Thr^{8}Lys^{26,34}$-bis-(Glyc-ATet)-GLP-1(7-36); $Thr^{8}Lys^{26,34}$-bis-(Glyc-ATet)-GLP-1(7-37); $Thr^{8}Lys^{26,34}$-bis-(Glyc-ATet)-GLP-1(7-38); $Thr^{8}Lys^{26,34}$-bis-(Glyc-ATet)-GLP-1(7-39)

$Thr^{8}Arg^{26}Lys^{34,36}$-bis-(Glyc-ATet)-GLP-1(7-36); $Thr^{8}Arg^{34}Lys^{26,36}$-bis-(Glyc-ATet)-GLP-1(7-36); $Thr^{8}Arg^{26}Lys^{34,36}$-bis-(Glyc-ATet)-GLP-1(7-37); $Thr^{8}Arg^{34}Lys^{26,36}$-bis-(Glyc-ATet)-GLP-1(7-37); $Thr^{8}Arg^{26}Lys^{34,37}$-bis-(Glyc-ATet)-GLP-1(7-37); $Thr^{8}Arg^{34}Lys^{26,37}$-bis-(Glyc-ATet)-GLP-1(7-37); $Thr^{8}Arg^{26}Lys^{34,38}$-bis-(Glyc-ATet)-GLP-1(7-38); $Thr^{8}Arg^{34}Lys^{26,38}$-bis-(Glyc-ATet)-GLP-1(7-38); $Thr^{8}Arg^{26,34}Lys^{36,38}$-bis-(Glyc-ATet)-GLP-1(7-38); $Thr^{8}Arg^{26}Lys^{34,39}$-bis-(Glyc-ATet)-GLP-1(7-39); $Thr^{8}Arg^{34}Lys^{26,39}$-bis-(Glyc-ATet)-GLP-1(7-39); $Thr^{8}Arg^{26,34}Lys^{36,39}$-bis-(Glyc-ATet)-GLP-1(7-39); $Lys^{26,34}$-bis-(Glyc-AHex)-GLP-1(7-36); $Lys^{26,34}$-bis-(Glyc-AHex)-GLP-1(7-37); $Lys^{26,34}$-bis-(Glyc-AHex)-GLP-1(7-38); $Lys^{26,34}$-bis-(Glyc-AHex)-GLP-1(7-39)

$Arg^{26}Lys^{34,36}$-bis-(Glyc-AHex)-GLP-1(7-36); $Arg^{34}Lys^{26,36}$-bis-(Glyc-AHex)-GLP-1(7-36); $Arg^{26}Lys^{34,36}$-bis-(Glyc-AHex)-GLP-1(7-37); $Arg^{34}Lys^{26,36}$-bis-(Glyc-AHex)-GLP-1(7-37); $Arg^{26}Lys^{34,37}$-bis-(Glyc-AHex)-GLP-1(7-37); $Arg^{34}Lys^{26,37}$-bis-(Glyc-AHex)-GLP-1(7-37); $Arg^{26}Lys^{34,39}$-bis-(Glyc-AHex)-GLP-1(7-39); $Arg^{34}Lys^{26,39}$-bis-(Glyc-AHex)-GLP-1(7-39); $Arg^{26,34}Lys^{36,39}$-bis-(Glyc-AHex)-GLP-1(7-39);

$Arg^{26}Lys^{18,34}$-bis-(Glyc-AHex)-GLP-1(7-36); $Arg^{34}Lys^{18,26}$-bis-(Glyc-AHex)-GLP-1(7-36); $Arg^{26}Lys^{18,34}$-bis-(Glyc-AHex)-GLP-1(7-37); $Arg^{34}Lys^{18,26}$-bis-(Glyc-AHex)-GLP-1(7-37); $Arg^{26}Lys^{18,34}$-bis-(Glyc-AHex)-GLP-1(7-38); $Arg^{34}Lys^{18,26}$-bis-(Glyc-AHex)-GLP-1(7-38); $Arg^{26}Lys^{18,34}$-bis-(Glyc-AHex)-GLP-1(7-39); $Arg^{34}Lys^{18,26}$-bis-(Glyc-AHex)-GLP-1(7-39);

$Arg^{26}Lys^{23,34}$-bis-(Glyc-AHex)-GLP-1(7-36); $Arg^{34}Lys^{23,26}$-bis-(Glyc-AHex)-GLP-1(7-36); $Arg^{26}Lys^{23,34}$-bis-(Glyc-AHex)-GLP-1(7-37); $Arg^{34}Lys^{23,26}$-bis-(Glyc-AHex)-GLP-1(7-37); $Arg^{26}Lys^{23,34}$-bis-(Glyc-AHex)-GLP-1(7-38); $Arg^{34}Lys^{23,26}$-bis-(Glyc-AHex)-GLP-1(7-38); $Arg^{26}Lys^{23,34}$-bis-(Glyc-AHex)-GLP-1(7-39); $Arg^{34}Lys^{23,26}$-bis-(Glyc-AHex)-GLP-1(7-39);

$Arg^{26}Lys^{27,34}$-bis-(Glyc-AHex)-GLP-1(7-36); $Arg^{34}Lys^{27,26}$-bis-(Glyc-AHex)-GLP-1(7-36); $Arg^{26}Lys^{27,34}$-bis-(Glyc-AHex)-GLP-1(7-37); $Arg^{34}Lys^{27,26}$-bis-(Glyc-AHex)-GLP-1(7-37); $Arg^{26}Lys^{27,34}$-bis-(Glyc-AHex)-GLP-1(7-38); $Arg^{34}Lys^{27,26}$-bis-(Glyc-AHex)-GLP-1(7-38); $Arg^{26}Lys^{27,34}$-bis-(Glyc-AHex)-GLP-1(7-39); $Arg^{34}Lys^{27,26}$-bis-(Glyc-AHex)-GLP-1(7-39);

$Gly^{8}Lys^{26,34}$-bis-(Glyc-AHex)-GLP-1(7-36); $Gly^{8}Lys^{26,34}$-bis-(Glyc-AHex)-GLP-1(7-37); $Gly^{8}Lys^{26,34}$-bis-(Glyc-AHex)-GLP-1(7-38); $Gly^{8}Lys^{26,34}$-bis-(Glyc-AHex)-GLP-1(7-39)

$Gly^{8}Arg^{26}Lys^{34,36}$-bis-(Glyc-AHex)-GLP-1(7-36); $Gly^{8}Arg^{34}Lys^{26,36}$-bis-(Glyc-AHex)-GLP-1(7-36); $Gly^{8}Arg^{26}Lys^{34,36}$-bis-(Glyc-AHex)-GLP-1(7-37); $Gly^{8}Arg^{34}Lys^{26,36}$-bis-(Glyc-AHex)-GLP-1(7-37); $Gly^{8}Arg^{26}Lys^{34,37}$-bis-(Glyc-AHex)-GLP-1(7-37); $Gly^{8}Arg^{34}Lys^{26,37}$-bis-(Glyc-AHex)-GLP-1(7-37); $Gly^{8}Arg^{26}Lys^{34,38}$-bis-(Glyc-AHex)-GLP-1(7-38); $Gly^{8}Arg^{34}Lys^{26,38}$-bis-(Glyc-AHex)-GLP-1(7-38); $Gly^{8}Arg^{26,34}Lys^{36,38}$-bis-(Glyc-AHex)-GLP-1(7-38); $Gly^{8}Arg^{26}Lys^{34,39}$-bis-(Glyc-AHex)-GLP-1(7-39); $Gly^{8}Arg^{34}Lys^{26,39}$-bis-(Glyc-AHex)-GLP-1(7-39); $Gly^{8}Arg^{26,34}Lys^{36,39}$-bis-(Glyc-AHex)-GLP-1(7-39);

$Val^{8}Lys^{26,34}$-bis-(Glyc-AHex)-GLP-1(7-36); $Val^{8}Lys^{26,34}$-bis-(Glyc-AHex)-GLP-1(7-37); $Val^{8}Lys^{26,34}$-bis-(Glyc-AHex)-GLP-1(7-38); $Val^{8}Lys^{26,34}$-bis-(Glyc-AHex)-GLP-1(7-39)

$Val^{8}Arg^{26}Lys^{34,36}$-bis-(Glyc-AHex)-GLP-1(7-36); $Val^{8}Arg^{34}Lys^{26,36}$-bis-(Glyc-AHex)-GLP-1(7-36); $Val^{8}Arg^{26}Lys^{34,36}$-bis-(Glyc-AHex)-GLP-1(7-37); $Val^{8}Arg^{34}Lys^{26,36}$-bis-(Glyc-AHex)-GLP-1(7-37); $Val^{8}Arg^{26}Lys^{34,37}$-bis-(Glyc-AHex)-GLP-1(7-37); $Val^{8}Arg^{34}Lys^{26,37}$-bis-(Glyc-AHex)-GLP-1(7-37); $Val^{8}Arg^{26}Lys^{34,38}$-bis-(Glyc-AHex)-GLP-1(7-38); $Val^{8}Arg^{34}Lys^{26,38}$-bis-(Glyc-AHex)-GLP-1(7-38); $Val^{8}Arg^{26,34}Lys^{36,38}$-bis-(Glyc-AHex)-GLP-1(7-38); $Val^{8}Arg^{26}Lys^{34,39}$-bis-(Glyc-AHex)-GLP-1(7-39); $Val^{8}Arg^{34}Lys^{26,39}$-bis-(Glyc-AHex)-GLP-1(7-39); $Val^{8}Arg^{26,34}Lys^{36,39}$-bis-(Glyc-AHex)-GLP-1(7-39);

$Ser^{8}Lys^{26,34}$-bis-(Glyc-AHex)-GLP-1(7-36); $Ser^{8}Lys^{26,34}$-bis-(Glyc-AHex)-GLP-1(7-37); $Ser^{8}Lys^{26,34}$-bis-(Glyc-AHex)-GLP-1(7-38); $Ser^{8}Lys^{26,34}$-bis-(Glyc-AHex)-GLP-1(7-39)

$Ser^{8}Arg^{26}Lys^{34,36}$-bis-(Glyc-AHex)-GLP-1(7-36); $Ser^{8}Arg^{34}Lys^{26,36}$-bis-(Glyc-AHex)-GLP-1(7-36); $Ser^{8}Arg^{26}Lys^{34,36}$-bis-(Glyc-AHex)-GLP-1(7-37); $Ser^{8}Arg^{34}Lys^{26,36}$-bis-(Glyc-AHex)-GLP-1(7-37); $Ser^{8}Arg^{26}Lys^{34,37}$-bis-(Glyc-AHex)-GLP-1(7-37); $Ser^{8}Arg^{34}Lys^{26,37}$-bis-(Glyc-AHex)-GLP-1(7-37); $Ser^{8}Arg^{26}Lys^{34,38}$-bis-(Glyc-AHex)-GLP-1(7-38); $Ser^{8}Arg^{34}Lys^{26,38}$-bis-(Glyc-AHex)-GLP-1(7-38); $Ser^{8}Arg^{26,34}Lys^{36,38}$-bis-(Glyc-AHex)-GLP-1(7-38); $Ser^{8}Arg^{26}Lys^{34,39}$-bis-(Glyc-AHex)-GLP-1(7-39); $Ser^{8}Arg^{34}Lys^{26,39}$-bis-(Glyc-AHex)-GLP-1(7-39); $Ser^{8}Arg^{26,34}Lys^{36,39}$-bis-(Glyc-AHex)-GLP-1(7-39);

$Thr^{8}Lys^{26,34}$-bis-(Glyc-AHex)-GLP-1(7-36); $Thr^{8}Lys^{26,34}$-bis-(Glyc-AHex)-GLP-1(7-37); $Thr^{8}Lys^{26,34}$-bis-(Glyc-AHex)-GLP-1(7-38); $Thr^{8}Lys^{26,34}$-bis-(Glyc-AHex)-GLP-1(7-39)

$Thr^{8}Arg^{26}Lys^{34,36}$-bis-(Glyc-AHex)-GLP-1(7-36); $Thr^{8}Arg^{34}Lys^{26,36}$-bis-(Glyc-AHex)-GLP-1(7-36); $Thr^{8}Arg^{26}Lys^{34,36}$-bis-(Glyc-AHex)-GLP-1(7-37); $Thr^{8}Arg^{34}Lys^{26,36}$-bis-(Glyc-AHex)-GLP-1(7-37); $Thr^{8}Arg^{26}Lys^{34,37}$-bis-(Glyc-AHex)-GLP-1(7-37); $Thr^{8}Arg^{34}Lys^{26,37}$-bis-(Glyc-AHex)-GLP-1(7-37); $Thr^{8}Arg^{26}Lys^{34,38}$-bis-(Glyc-AHex)-GLP-1(7-38); $Thr^{8}Arg^{34}Lys^{26,38}$-bis-(Glyc-AHex)-GLP-1(7-38); $Thr^{8}Arg^{26,34}Lys^{36,38}$-bis-(Glyc-AHex)-GLP-1(7-38); $Thr^{8}Arg^{26}Lys^{34,39}$-bis-(Glyc-AHex)-GLP-1(7-39); $Thr^{8}Arg^{34}Lys^{26,39}$-bis-(Glyc-AHex)-GLP-1(7-39); $Thr^{8}Arg^{26,34}Lys^{36,39}$-bis-(Glyc-AHex)-GLP-1(7-39);

$Lys^{26,34}$-bis-(Glyc-AOct)-GLP-1(7-36); $Lys^{26,34}$-bis-(Glyc-AOct)-GLP-1(7-37); $Lys^{26,34}$-bis-(Glyc-AOct)-GLP-1(7-38); $Lys^{26,34}$-bis-(Glyc-AOct)-GLP-1(7-39)

$Arg^{26}Lys^{34,36}$-bis-(Glyc-AOct)-GLP-1(7-36); $Arg^{34}Lys^{26,36}$-bis-(Glyc-AOct)-GLP-1(7-36); $Arg^{26}Lys^{34,36}$-bis-(Glyc-AOct)-GLP-1(7-37); $Arg^{34}Lys^{26,36}$-bis-(Glyc-AOct)-GLP-1(7-37); $Arg^{26}Lys^{34,37}$-bis-(Glyc-AOct)-GLP-1(7-37); $Arg^{34}Lys^{26,37}$-bis-(Glyc-AOct)-GLP-1(7-37); $Arg^{26}Lys^{34,39}$-bis-(Glyc-AOct)-GLP-1(7-39); $Arg^{34}Lys^{26,39}$-bis-(Glyc-AOct)-GLP-1(7-39); $Arg^{26,34}Lys^{36,39}$-bis-(Glyc-AOct)-GLP-1(7-39);

$Arg^{26}Lys^{18,34}$-bis-(Glyc-AOct)-GLP-1(7-36); $Arg^{34}Lys^{18,26}$-bis-(Glyc-AOct)-GLP-1(7-36);
$Arg^{26}Lys^{18,34}$-bis-(Glyc-AOct)-GLP-1(7-37); $Arg^{34}Lys^{18,26}$-bis-(Glyc-AOct)-GLP-1(7-37);
$Arg^{26}Lys^{18,34}$-bis-(Glyc-AOct)-GLP-1(7-38); $Arg^{34}Lys^{18,26}$-bis-(Glyc-AOct)-GLP-1(7-38);
$Arg^{26}Lys^{18,34}$-bis-(Glyc-AOct)-GLP-1(7-39); $Arg^{34}Lys^{18,26}$-bis-(Glyc-AOct)-GLP-1(7-39);
$Arg^{26}Lys^{23,34}$-bis-(Glyc-AOct)-GLP-1(7-36); $Arg^{34}Lys^{23,26}$-bis-(Glyc-AOct)-GLP-1(7-36);
$Arg^{26}Lys^{23,34}$-bis-(Glyc-AOct)-GLP-1(7-37); $Arg^{34}Lys^{23,26}$-bis-(Glyc-AOct)-GLP-1(7-37);
$Arg^{26}Lys^{23,34}$-bis-(Glyc-AOct)-GLP-1(7-38); $Arg^{34}Lys^{23,26}$-bis-(Glyc-AOct)-GLP-1(7-38);
$Arg^{26}Lys^{23,34}$-bis-(Glyc-AOct)-GLP-1(7-39); $Arg^{34}Lys^{23,26}$-bis-(Glyc-AOct)-GLP-1(7-39);
$Arg^{26}Lys^{27,34}$-bis-(Glyc-AOct)-GLP-1(7-36); $Arg^{34}Lys^{27,26}$-bis-(Glyc-AOct)-GLP-1(7-36);
$Arg^{26}Lys^{27,34}$-bis-(Glyc-AOct)-GLP-1(7-37); $Arg^{34}Lys^{27,26}$-bis-(Glyc-AOct)-GLP-1(7-37);
$Arg^{26}Lys^{27,34}$-bis-(Glyc-AOct)-GLP-1(7-38); $Arg^{34}Lys^{27,26}$-bis-(Glyc-AOct)-GLP-1(7-38);
$Arg^{26}Lys^{27,34}$-bis-(Glyc-AOct)-GLP-1(7-39); $Arg^{34}Lys^{27,26}$-bis-(Glyc-AOct)-GLP-1(7-39);
$Gly^{8}Lys^{26,34}$-bis-(Glyc-AOct)-GLP-1(7-36); $Gly^{8}Lys^{26,34}$-bis-(Glyc-AOct)-GLP-1(7-37);
$Gly^{8}Lys^{26,34}$-bis-(Glyc-AOct)-GLP-1(7-38); $Gly^{8}Lys^{26,34}$-bis-(Glyc-AOct)-GLP-1(7-39)
$Gly^{8}Arg^{26}Lys^{34,36}$-bis-(Glyc-AOct)-GLP-1(7-36); $Gly^{8}Arg^{34}Lys^{26,36}$-bis-(Glyc-AOct)-GLP-1(7-36);
$Gly^{8}Arg^{26}Lys^{34,36}$-bis-(Glyc-AOct)-GLP-1(7-37); $Gly^{8}Arg^{34}Lys^{26,36}$-bis-(Glyc-AOct)-GLP-1(7-37);
$Gly^{8}Arg^{26}Lys^{34,37}$-bis-(Glyc-AOct)-GLP-1(7-37); $Gly^{8}Arg^{34}Lys^{26,37}$-bis-(Glyc-AOct)-GLP-1(7-37);
$Gly^{8}Arg^{26}Lys^{34,38}$-bis-(Glyc-AOct)-GLP-1(7-38); $Gly^{8}Arg^{34}Lys^{26,38}$-bis-(Glyc-AOct)-GLP-1(7-38);
$Gly^{8}Arg^{26,34}Lys^{36,38}$-bis-(Glyc-AOct)-GLP-1(7-38); $Gly^{8}Arg^{26}Lys^{34,39}$-bis-(Glyc-AOct)-GLP-1(7-39);
$Gly^{8}Arg^{34}Lys^{26,39}$-bis-(Glyc-AOct)-GLP-1(7-39); $Gly^{8}Arg^{26,34}Lys^{36,39}$-bis-(Glyc-AOct)-GLP-1(7-39);
$Val^{8}Lys^{26,34}$-bis-(Glyc-AOct)-GLP-1(7-36); $Val^{8}Lys^{26,34}$-bis-(Glyc-AOct)-GLP-1(7-37); $Val^{8}Lys^{26,34}$-bis-(Glyc-AOct)-GLP-1(7-38); $Val^{8}Lys^{26,34}$-bis-(Glyc-AOct)-GLP-1(7-39)
$Val^{8}Arg^{26}Lys^{34,36}$-bis-(Glyc-AOct)-GLP-1(7-36); $Val^{8}Arg^{34}Lys^{26,36}$-bis-(Glyc-AOct)-GLP-1(7-36);
$Val^{8}Arg^{26}Lys^{34,36}$-bis-(Glyc-AOct)-GLP-1(7-37); $Val^{8}Arg^{34}Lys^{26,36}$-bis-(Glyc-AOct)-GLP-1(7-37);
$Val^{8}Arg^{26}Lys^{34,37}$-bis-(Glyc-AOct)-GLP-1(7-37); $Val^{8}Arg^{34}Lys^{26,37}$-bis-(Glyc-AOct)-GLP-1(7-37);
$Val^{8}Arg^{26}Lys^{34,38}$-bis-(Glyc-AOct)-GLP-1(7-38); $Val^{8}Arg^{34}Lys^{26,38}$-bis-(Glyc-AOct)-GLP-1(7-38);
$Val^{8}Arg^{26,34}Lys^{36,38}$-bis-(Glyc-AOct)-GLP-1(7-38); $Val^{8}Arg^{26}Lys^{34,39}$-bis-(Glyc-AOct)-GLP-1(7-39);
$Val^{8}Arg^{34}Lys^{26,39}$-bis-(Glyc-AOct)-GLP-1(7-39); $Val^{8}Arg^{26,34}Lys^{36,39}$-bis-(Glyc-AOct)-GLP-1(7-39);
$Ser^{8}Lys^{26,34}$-bis-(Glyc-AOct)-GLP-1(7-36); $Ser^{8}Lys^{26,34}$-bis-(Glyc-AOct)-GLP-1(7-37);
$Ser^{8}Lys^{26,34}$-bis-(Glyc-AOct)-GLP-1(7-38); $Ser^{8}Lys^{26,34}$-bis-(Glyc-AOct)-GLP-1(7-39)
$Ser^{8}Arg^{26}Lys^{34,36}$-bis-(Glyc-AOct)-GLP-1(7-36); $Ser^{8}Arg^{34}Lys^{26,36}$-bis-(Glyc-AOct)-GLP-1(7-36);
$Ser^{8}Arg^{26}Lys^{34,36}$-bis-(Glyc-AOct)-GLP-1(7-37); $Ser^{8}Arg^{34}Lys^{26,36}$-bis-(Glyc-AOct)-GLP-1(7-37);
$Ser^{8}Arg^{26}Lys^{34,37}$-bis-(Glyc-AOct)-GLP-1(7-37); $Ser^{8}Arg^{34}Lys^{26,37}$-bis-(Glyc-AOct)-GLP-1(7-37);
$Ser^{8}Arg^{26}Lys^{34,38}$-bis-(Glyc-AOct)-GLP-1(7-38); $Ser^{8}Arg^{34}Lys^{26,38}$-bis-(Glyc-AOct)-GLP-1(7-38);

Ser^{8}Arg^{26,34}Lys^{36,38}-bis-(Glyc-AOct)-GLP-1(7-38); Ser^{8}Arg^{26}Lys^{34,39}-bis-(Glyc-AOct)-GLP-1(7-39); Ser^{8}Arg^{34}Lys^{26,39}-bis-(Glyc-AOct)-GLP-1(7-39); Ser^{8}Arg^{26,34}Lys^{36,39}-bis-(Glyc-AOct)-GLP-1(7-39); Thr^{8}Lys^{26,34}-bis-(Glyc-AOct)-GLP-1(7-36); Thr^{8}Lys^{26,34}-bis-(Glyc-AOct)-GLP-1(7-37); Thr^{8}Lys^{26,34}-bis-(Glyc-AOct)-GLP-1(7-38); Thr^{8}Lys^{26,34}-bis-(Glyc-AOct)-GLP-1(7-39)

Thr^{8}Arg^{26}Lys^{34,36}-bis-(Glyc-AOct)-GLP-1(7-36); Thr^{8}Arg^{34}Lys^{26,36}-bis-(Glyc-AOct)-GLP-1(7-36); Thr^{8}Arg^{26}Lys^{34,36}-bis-(Glyc-AOct)-GLP-1(7-37); Thr^{8}Arg^{34}Lys^{26,36}-bis-(Glyc-AOct)-GLP-1(7-37); Thr^{8}Arg^{26}Lys^{34,37}-bis-(Glyc-AOct)-GLP-1(7-37); Thr^{8}Arg^{34}Lys^{26,37}-bis-(Glyc-AOct)-GLP-1(7-37); Thr^{8}Arg^{26}Lys^{34,38}-bis-(Glyc-AOct)-GLP-1(7-38); Thr^{8}Arg^{34}Lys^{26,38}-bis-(Glyc-AOct)-GLP-1(7-38); Thr^{8}Arg^{26,34}Lys^{36,38}-bis-(Glyc-AOct)-GLP-1(7-38); Thr^{8}Arg^{26}Lys^{34,39}-bis-(Glyc-AOct)-GLP-1(7-39); Thr^{8}Arg^{34}Lys^{26,39}-bis-(Glyc-AOct)-GLP-1(7-39); Thr^{8}Arg^{26,34}Lys^{36,39}-bis-(Glyc-AOct)-GLP-1(7-39); Lys^{26,34}-bis-(Glyc-ALit)-GLP-1(7-36); Lys^{26,34}-bis-(Glyc-ALit)-GLP-1(7-37); Lys^{26,34}-bis-(Glyc-ALit)-GLP-1(7-38); Lys^{26,34}-bis-(Glyc-ALit)-GLP-1(7-39)

Arg^{26}Lys^{34,36}-bis-(Glyc-ALit)-GLP-1(7-36); Arg^{34}Lys^{26,36}-bis-(Glyc-ALit)-GLP-1(7-36); Arg^{26}Lys^{34,36}-bis-(Glyc-ALit)-GLP-1(7-37); Arg^{34}Lys^{26,36}-bis-(Glyc-ALit)-GLP-1(7-37); Arg^{26}Lys^{34,37}-bis-(Glyc-ALit)-GLP-1(7-37); Arg^{34}Lys^{26,37}-bis-(Glyc-ALit)-GLP-1(7-37); Arg^{26}Lys^{34,39}-bis-(Glyc-ALit)-GLP-1(7-39); Arg^{34}Lys^{26,39}-bis-(Glyc-ALit)-GLP-1(7-39); Arg^{26,34}Lys^{36,39}-bis-(Glyc-ALit)-GLP-1(7-39);

Arg^{26}Lys^{18,34}-bis-(Glyc-ALit)-GLP-1(7-36); Arg^{34}Lys^{18,26}-bis-(Glyc-ALit)-GLP-1(7-36); Arg^{26}Lys^{18,34}-bis-(Glyc-ALit)-GLP-1(7-37); Arg^{34}Lys^{18,26}-bis-(Glyc-ALit)-GLP-1(7-37); Arg^{26}Lys^{18,34}-bis-(Glyc-ALit)-GLP-1(7-38); Arg^{34}Lys^{18,26}-bis-(Glyc-ALit)-GLP-1(7-38); Arg^{26}Lys^{18,34}-bis-(Glyc-ALit)-GLP-1(7-39); Arg^{34}Lys^{18,26}-bis-(Glyc-ALit)-GLP-1(7-39);

Arg^{26}Lys^{23,34}-bis-(Glyc-ALit)-GLP-1(7-36); Arg^{34}Lys^{23,26}-bis-(Glyc-ALit)-GLP-1(7-36); Arg^{26}Lys^{23,34}-bis-(Glyc-ALit)-GLP-1(7-37); Arg^{34}Lys^{23,26}-bis-(Glyc-ALit)-GLP-1(7-37); Arg^{26}Lys^{23,34}-bis-(Glyc-ALit)-GLP-1(7-38); Arg^{34}Lys^{23,26}-bis-(Glyc-ALit)-GLP-1(7-38); Arg^{26}Lys^{23,34}-bis-(Glyc-ALit)-GLP-1(7-39); Arg^{34}Lys^{23,26}-bis-(Glyc-ALit)-GLP-1(7-39);

Arg^{26}Lys^{27,34}-bis-(Glyc-ALit)-GLP-1(7-36); Arg^{34}Lys^{27,26}-bis-(Glyc-ALit)-GLP-1(7-36); Arg^{26}Lys^{27,34}-bis-(Glyc-ALit)-GLP-1(7-37); Arg^{34}Lys^{27,26}-bis-(Glyc-ALit)-GLP-1(7-37); Arg^{26}Lys^{27,34}-bis-(Glyc-ALit)-GLP-1(7-38); Arg^{34}Lys^{27,26}-bis-(Glyc-ALit)-GLP-1(7-38); Arg^{26}Lys^{27,34}-bis-(Glyc-ALit)-GLP-1(7-39); Arg^{34}Lys^{27,26}-bis-(Glyc-ALit)-GLP-1(7-39);

Gly^{8}Lys^{26,34}-bis-(Glyc-ALit)-GLP-1(7-36); Gly^{8}Lys^{26,34}-bis-(Glyc-ALit)-GLP-1(7-37); Gly^{8}Lys^{26,34}-bis-(Glyc-ALit)-GLP-1(7-38); Gly^{8}Lys^{26,34}-bis-(Glyc-ALit)-GLP-1(7-39)

Gly^{8}Arg^{26}Lys^{34,36}-bis-(Glyc-ALit)-GLP-1(7-36); Gly^{8}Arg^{34}Lys^{26,36}-bis-(Glyc-ALit)-GLP-1(7-36); Gly^{8}Arg^{26}Lys^{34,36}-bis-(Glyc-ALit)-GLP-1(7-37); Gly^{8}Arg^{34}Lys^{26,36}-bis-(Glyc-ALit)-GLP-1(7-37); Gly^{8}Arg^{26}Lys^{34,37}-bis-(Glyc-ALit)-GLP-1(7-37); Gly^{8}Arg^{34}Lys^{26,37}-bis-(Glyc-ALit)-GLP-1(7-37);

$Gly^{8}Arg^{26}Lys^{34,38}$-bis-(Glyc-ALit)-GLP-1(7-38); $Gly^{8}Arg^{34}Lys^{26,38}$-bis-(Glyc-ALit)-GLP-1(7-38); $Gly^{8}Arg^{26,34}Lys^{36,38}$-bis-(Glyc-ALit)-GLP-1(7-38); $Gly^{8}Arg^{26}Lys^{34,39}$-bis-(Glyc-ALit)-GLP-1(7-39); $Gly^{8}Arg^{34}Lys^{26,39}$-bis-(Glyc-ALit)-GLP-1(7-39); $Gly^{8}Arg^{26,34}Lys^{36,39}$-bis-(Glyc-ALit)-GLP-1(7-39); $Val^{8}Lys^{26,34}$-bis-(Glyc-ALit)-GLP-1(7-36); $Val^{8}Lys^{26,34}$-bis-(Glyc-ALit)-GLP-1(7-37); $Val^{8}Lys^{26,34}$-bis-(Glyc-ALit)-GLP-1(7-38); $Val^{8}Lys^{26,34}$-bis-(Glyc-ALit)-GLP-1(7-39)

$Val^{8}Arg^{26}Lys^{34,36}$-bis-(Glyc-ALit)-GLP-1(7-36); $Val^{8}Arg^{34}Lys^{26,36}$-bis-(Glyc-ALit)-GLP-1(7-36); $Val^{8}Arg^{26}Lys^{34,36}$-bis-(Glyc-ALit)-GLP-1(7-37); $Val^{8}Arg^{34}Lys^{26,36}$-bis-(Glyc-ALit)-GLP-1(7-37); $Val^{8}Arg^{26}Lys^{34,37}$-bis-(Glyc-ALit)-GLP-1(7-37); $Val^{8}Arg^{34}Lys^{26,37}$-bis-(Glyc-ALit)-GLP-1(7-37); $Val^{8}Arg^{26}Lys^{34,38}$-bis-(Glyc-ALit)-GLP-1(7-38); $Val^{8}Arg^{34}Lys^{26,38}$-bis-(Glyc-ALit)-GLP-1(7-38); $Val^{8}Arg^{26,34}Lys^{36,38}$-bis-(Glyc-ALit)-GLP-1(7-38); $Val^{8}Arg^{26}Lys^{34,39}$-bis-(Glyc-ALit)-GLP-1(7-39); $Val^{8}Arg^{34}Lys^{26,39}$-bis-(Glyc-ALit)-GLP-1(7-39); $Val^{8}Arg^{26,34}Lys^{36,39}$-bis-(Glyc-ALit)-GLP-1(7-39); $Ser^{8}Lys^{26,34}$-bis-(Glyc-ALit)-GLP-1(7-36); $Ser^{8}Lys^{26,34}$-bis-(Glyc-ALit)-GLP-1(7-37); $Ser^{8}Lys^{26,34}$-bis-(Glyc-ALit)-GLP-1(7-38); $Ser^{8}Lys^{26,34}$-bis-(Glyc-ALit)-GLP-1(7-39)

$Ser^{8}Arg^{26}Lys^{34,36}$-bis-(Glyc-ALit)-GLP-1(7-36); $Ser^{8}Arg^{34}Lys^{26,36}$-bis-(Glyc-ALit)-GLP-1(7-36); $Ser^{8}Arg^{26}Lys^{34,36}$-bis-(Glyc-ALit)-GLP-1(7-37); $Ser^{8}Arg^{34}Lys^{26,36}$-bis-(Glyc-ALit)-GLP-1(7-37); $Ser^{8}Arg^{26}Lys^{34,37}$-bis-(Glyc-ALit)-GLP-1(7-37); $Ser^{8}Arg^{34}Lys^{26,37}$-bis-(Glyc-ALit)-GLP-1(7-37); $Ser^{8}Arg^{26}Lys^{34,38}$-bis-(Glyc-ALit)-GLP-1(7-38); $Ser^{8}Arg^{34}Lys^{26,38}$-bis-(Glyc-ALit)-GLP-1(7-38); $Ser^{8}Arg^{26,34}Lys^{36,38}$-bis-(Glyc-ALit)-GLP-1(7-38); $Ser^{8}Arg^{26}Lys^{34,39}$-bis-(Glyc-ALit)-GLP-1(7-39); $Ser^{8}Arg^{34}Lys^{26,39}$-bis-(Glyc-ALit)-GLP-1(7-39); $Ser^{8}Arg^{26,34}Lys^{36,39}$-bis-(Glyc-ALit)-GLP-1(7-39); $Thr^{8}Lys^{26,34}$-bis-(Glyc-ALit)-GLP-1(7-36); $Thr^{8}Lys^{26,34}$-bis-(Glyc-ALit)-GLP-1(7-37); $Thr^{8}Lys^{26,34}$-bis-(Glyc-ALit)-GLP-1(7-38); $Thr^{8}Lys^{26,34}$-bis-(Glyc-ALit)-GLP-1(7-39)

$Thr^{8}Arg^{26}Lys^{34,36}$-bis-(Glyc-ALit)-GLP-1(7-36); $Thr^{8}Arg^{34}Lys^{26,36}$-bis-(Glyc-ALit)-GLP-1(7-36); $Thr^{8}Arg^{26}Lys^{34,36}$-bis-(Glyc-ALit)-GLP-1(7-37); $Thr^{8}Arg^{34}Lys^{26,36}$-bis-(Glyc-ALit)-GLP-1(7-37); $Thr^{8}Arg^{26}Lys^{34,37}$-bis-(Glyc-ALit)-GLP-1(7-37); $Thr^{8}Arg^{34}Lys^{26,37}$-bis-(Glyc-ALit)-GLP-1(7-37); $Thr^{8}Arg^{26}Lys^{34,38}$-bis-(Glyc-ALit)-GLP-1(7-38); $Thr^{8}Arg^{34}Lys^{26,38}$-bis-(Glyc-ALit)-GLP-1(7-38); $Thr^{8}Arg^{26,34}Lys^{36,38}$-bis-(Glyc-ALit)-GLP-1(7-38); $Thr^{8}Arg^{26}Lys^{34,39}$-bis-(Glyc-ALit)-GLP-1(7-39); $Thr^{8}Arg^{34}Lys^{26,39}$-bis-(Glyc-ALit)-GLP-1(7-39); $Thr^{8}Arg^{26,34}Lys^{36,39}$-bis-(Glyc-ALit)-GLP-1(7-39); $Lys^{26,34}$-bis-(GAB-GDod)-GLP-1(7-36); $Lys^{26,34}$-bis-(GAB-GDod)-GLP-1(7-37); $Lys^{26,34}$-bis-(GAB-GDod)-GLP-1(7-38); $Lys^{26,34}$-bis-(GAB-GDod)-GLP-1(7-39)

$Arg^{26}Lys^{34,36}$-bis-(GAB-GDod)-GLP-1(7-36); $Arg^{34}Lys^{26,36}$-bis-(GAB-GDod)-GLP-1(7-36); $Arg^{26}Lys^{34,36}$-bis-(GAB-GDod)-GLP-1(7-37); $Arg^{34}Lys^{26,36}$-bis-(GAB-GDod)-GLP-1(7-37); $Arg^{26}Lys^{34,37}$-bis-(GAB-GDod)-GLP-1(7-37); $Arg^{34}Lys^{26,37}$-bis-(GAB-GDod)-GLP-1(7-37); $Arg^{26}Lys^{34,39}$-bis-(GAB-GDod)-GLP-1(7-39); $Arg^{34}Lys^{26,39}$-bis-(GAB-GDod)-GLP-1(7-39); $Arg^{26,34}Lys^{36,39}$-bis-(GAB-GDod)-GLP-1(7-39);

$Arg^{26}Lys^{18,34}$-bis-(GAB-GDod)-GLP-1(7-36); $Arg^{34}Lys^{18,26}$-bis-(GAB-GDod)-GLP-1(7-36); $Arg^{26}Lys^{18,34}$-bis-(GAB-GDod)-GLP-1(7-37); $Arg^{34}Lys^{18,26}$-bis-(GAB-GDod)-GLP-1(7-37); $Arg^{26}Lys^{18,34}$-bis-(GAB-GDod)-GLP-1(7-38); $Arg^{34}Lys^{18,26}$-bis-(GAB-GDod)-GLP-1(7-38); $Arg^{26}Lys^{18,34}$-bis-(GAB-GDod)-GLP-1(7-39); $Arg^{34}Lys^{18,26}$-bis-(GAB-GDod)-GLP-1(7-39);

$Arg^{26}Lys^{23,34}$-bis-(GAB-GDod)-GLP-1(7-36); $Arg^{34}Lys^{23,26}$-bis-(GAB-GDod)-GLP-1(7-36); $Arg^{26}Lys^{23,34}$-bis-(GAB-GDod)-GLP-1(7-37); $Arg^{34}Lys^{23,26}$-bis-(GAB-GDod)-GLP-1(7-37); $Arg^{26}Lys^{23,34}$-bis-(GAB-GDod)-GLP-1(7-38); $Arg^{34}Lys^{23,26}$-bis-(GAB-GDod)-GLP-1(7-38); $Arg^{26}Lys^{23,34}$-bis-(GAB-GDod)-GLP-1(7-39); $Arg^{34}Lys^{23,26}$-bis-(GAB-GDod)-GLP-1(7-39);

$Arg^{26}Lys^{27,34}$-bis-(GAB-GDod)-GLP-1(7-36); $Arg^{34}Lys^{27,26}$-bis-(GAB-GDod)-GLP-1(7-36); $Arg^{26}Lys^{27,34}$-bis-(GAB-GDod)-GLP-1(7-37); $Arg^{34}Lys^{27,26}$-bis-(GAB-GDod)-GLP-1(7-37); $Arg^{26}Lys^{27,34}$-bis-(GAB-GDod)-GLP-1(7-38); $Arg^{34}Lys^{27,26}$-bis-(GAB-GDod)-GLP-1(7-38); $Arg^{26}Lys^{27,34}$-bis-(GAB-GDod)-GLP-1(7-39); $Arg^{34}Lys^{27,26}$-bis-(GAB-GDod)-GLP-1(7-39);

$Gly^{8}Lys^{26,34}$-bis-(GAB-GDod)-GLP-1(7-36); $Gly^{8}Lys^{26,34}$-bis-(GAB-GDod)-GLP-1(7-37); $Gly^{8}Lys^{26,34}$-bis-(GAB-GDod)-GLP-1(7-38); $Gly^{8}Lys^{26,34}$-bis-(GAB-GDod)-GLP-1(7-39)

$Gly^{8}Arg^{26}Lys^{34,36}$-bis-(GAB-GDod)-GLP-1(7-36); $Gly^{8}Arg^{34}Lys^{26,36}$-bis-(GAB-GDod)-GLP-1(7-36); $Gly^{8}Arg^{26}Lys^{34,36}$-bis-(GAB-GDod)-GLP-1(7-37); $Gly^{8}Arg^{34}Lys^{26,36}$-bis-(GAB-GDod)-GLP-1(7-37); $Gly^{8}Arg^{26}Lys^{34,37}$-bis-(GAB-GDod)-GLP-1(7-37); $Gly^{8}Arg^{34}Lys^{26,37}$-bis-(GAB-GDod)-GLP-1(7-37); $Gly^{8}Arg^{26}Lys^{34,38}$-bis-(GAB-GDod)-GLP-1(7-38); $Gly^{8}Arg^{34}Lys^{26,38}$-bis-(GAB-GDod)-GLP-1(7-38); $Gly^{8}Arg^{26,34}Lys^{36,38}$-bis-(GAB-GDod)-GLP-1(7-38); $Gly^{8}Arg^{26}Lys^{34,39}$-bis-(GAB-GDod)-GLP-1(7-39); $Gly^{8}Arg^{34}Lys^{26,39}$-bis-(GAB-GDod)-GLP-1(7-39); $Gly^{8}Arg^{26,34}Lys^{36,39}$-bis-(GAB-GDod)-GLP-1(7-39);

$Val^{8}Lys^{26,34}$-bis-(GAB-GDod)-GLP-1(7-36); $Val^{8}Lys^{26,34}$-bis-(GAB-GDod)-GLP-1(7-37); $Val^{8}Lys^{26,34}$-bis-(GAB-GDod)-GLP-1(7-38); $Val^{8}Lys^{26,34}$-bis-(GAB-GDod)-GLP-1(7-39)

$Val^{8}Arg^{26}Lys^{34,36}$-bis-(GAB-GDod)-GLP-1(7-36); $Val^{8}Arg^{34}Lys^{26,36}$-bis-(GAB-GDod)-GLP-1(7-36); $Val^{8}Arg^{26}Lys^{34,36}$-bis-(GAB-GDod)-GLP-1(7-37); $Val^{8}Arg^{34}Lys^{26,36}$-bis-(GAB-GDod)-GLP-1(7-37); $Val^{8}Arg^{26}Lys^{34,37}$-bis-(GAB-GDod)-GLP-1(7-37); $Val^{8}Arg^{34}Lys^{26,37}$-bis-(GAB-GDod)-GLP-1(7-37); $Val^{8}Arg^{26}Lys^{34,38}$-bis-(GAB-GDod)-GLP-1(7-38); $Val^{8}Arg^{34}Lys^{26,38}$-bis-(GAB-GDod)-GLP-1(7-38); $Val^{8}Arg^{26,34}Lys^{36,38}$-bis-(GAB-GDod)-GLP-1(7-38); $Val^{8}Arg^{26}Lys^{34,39}$-bis-(GAB-GDod)-GLP-1(7-39); $Val^{8}Arg^{34}Lys^{26,39}$-bis-(GAB-GDod)-GLP-1(7-39); $Val^{8}Arg^{26,34}Lys^{36,39}$-bis-(GAB-GDod)-GLP-1(7-39);

$Ser^{8}Lys^{26,34}$-bis-(GAB-GDod)-GLP-1(7-36); $Ser^{8}Lys^{26,34}$-bis-(GAB-GDod)-GLP-1(7-37); $Ser^{8}Lys^{26,34}$-bis-(GAB-GDod)-GLP-1(7-38); $Ser^{8}Lys^{26,34}$-bis-(GAB-GDod)-GLP-1(7-39)

$Ser^{8}Arg^{26}Lys^{34,36}$-bis-(GAB-GDod)-GLP-1(7-36); $Ser^{8}Arg^{34}Lys^{26,36}$-bis-(GAB-GDod)-GLP-1(7-36); $Ser^{8}Arg^{26}Lys^{34,36}$-bis-(GAB-GDod)-GLP-1(7-37); $Ser^{8}Arg^{34}Lys^{26,36}$-bis-(GAB-GDod)-GLP-

1(7-37); $Ser^{8}Arg^{26}Lys^{34,37}$-bis-(GAB-GDod)-GLP-1(7-37); $Ser^{8}Arg^{34}Lys^{26,37}$-bis-(GAB-GDod)-GLP-1(7-37); $Ser^{8}Arg^{26}Lys^{34,38}$-bis-(GAB-GDod)-GLP-1(7-38); $Ser^{8}Arg^{34}Lys^{26,38}$-bis-(GAB-GDod)-GLP-1(7-38); $Ser^{8}Arg^{26,34}Lys^{36,38}$-bis-(GAB-GDod)-GLP-1(7-38); $Ser^{8}Arg^{26}Lys^{34,39}$-bis-(GAB-GDod)-GLP-1(7-39); $Ser^{8}Arg^{34}Lys^{26,39}$-bis-(GAB-GDod)-GLP-1(7-39); $Ser^{8}Arg^{26,34}Lys^{36,39}$-bis-(GAB-GDod)-GLP-1(7-39);

$Thr^{8}Lys^{26,34}$-bis-(GAB-GDod)-GLP-1(7-36); $Thr^{8}Lys^{26,34}$-bis-(GAB-GDod)-GLP-1(7-37); $Thr^{8}Lys^{26,34}$-bis-(GAB-GDod)-GLP-1(7-38); $Thr^{8}Lys^{26,34}$-bis-(GAB-GDod)-GLP-1(7-39)

$Thr^{8}Arg^{26}Lys^{34,36}$-bis-(GAB-GDod)-GLP-1(7-36); $Thr^{8}Arg^{34}Lys^{26,36}$-bis-(GAB-GDod)-GLP-1(7-36); $Thr^{8}Arg^{26}Lys^{34,36}$-bis-(GAB-GDod)-GLP-1(7-37); $Thr^{8}Arg^{34}Lys^{26,36}$-bis-(GAB-GDod)-GLP-1(7-37); $Thr^{8}Arg^{26}Lys^{34,37}$-bis-(GAB-GDod)-GLP-1(7-37); $Thr^{8}Arg^{34}Lys^{26,37}$-bis-(GAB-GDod)-GLP-1(7-37); $Thr^{8}Arg^{26}Lys^{34,38}$-bis-(GAB-GDod)-GLP-1(7-38); $Thr^{8}Arg^{34}Lys^{26,38}$-bis-(GAB-GDod)-GLP-1(7-38); $Thr^{8}Arg^{26,34}Lys^{36,38}$-bis-(GAB-GDod)-GLP-1(7-38); $Thr^{8}Arg^{26}Lys^{34,39}$-bis-(GAB-GDod)-GLP-1(7-39); $Thr^{8}Arg^{34}Lys^{26,39}$-bis-(GAB-GDod)-GLP-1(7-39); $Thr^{8}Arg^{26,34}Lys^{36,39}$-bis-(GAB-GDod)-GLP-1(7-39);

$Lys^{26,34}$-bis-(GAB-GTet)-GLP-1(7-36); $Lys^{26,34}$-bis-(GAB-GTet)-GLP-1(7-37); $Lys^{26,34}$-bis-(GAB-GTet)-GLP-1(7-38); $Lys^{26,34}$-bis-(GAB-GTet)-GLP-1(7-39)

$Arg^{26}Lys^{34,36}$-bis-(GAB-GTet)-GLP-1(7-36); $Arg^{34}Lys^{26,36}$-bis-(GAB-GTet)-GLP-1(7-36);
$Arg^{26}Lys^{34,36}$-bis-(GAB-GTet)-GLP-1(7-37); $Arg^{34}Lys^{26,36}$-bis-(GAB-GTet)-GLP-1(7-37);
$Arg^{26}Lys^{34,37}$-bis-(GAB-GTet)-GLP-1(7-37); $Arg^{34}Lys^{26,37}$-bis-(GAB-GTet)-GLP-1(7-37);
$Arg^{26}Lys^{34,39}$-bis-(GAB-GTet)-GLP-1(7-39); $Arg^{34}Lys^{26,39}$-bis-(GAB-GTet)-GLP-1(7-39);
$Arg^{26,34}Lys^{36,39}$-bis-(GAB-GTet)-GLP-1(7-39);

$Arg^{26}Lys^{18,34}$-bis-(GAB-GTet)-GLP-1(7-36); $Arg^{34}Lys^{18,26}$-bis-(GAB-GTet)-GLP-1(7-36);
$Arg^{26}Lys^{18,34}$-bis-(GAB-GTet)-GLP-1(7-37); $Arg^{34}Lys^{18,26}$-bis-(GAB-GTet)-GLP-1(7-37);
$Arg^{26}Lys^{18,34}$-bis-(GAB-GTet)-GLP-1(7-38); $Arg^{34}Lys^{18,26}$-bis-(GAB-GTet)-GLP-1(7-38);
$Arg^{26}Lys^{18,34}$-bis-(GAB-GTet)-GLP-1(7-39); $Arg^{34}Lys^{18,26}$-bis-(GAB-GTet)-GLP-1(7-39);

$Arg^{26}Lys^{23,34}$-bis-(GAB-GTet)-GLP-1(7-36); $Arg^{34}Lys^{23,26}$-bis-(GAB-GTet)-GLP-1(7-36);
$Arg^{26}Lys^{23,34}$-bis-(GAB-GTet)-GLP-1(7-37); $Arg^{34}Lys^{23,26}$-bis-(GAB-GTet)-GLP-1(7-37);
$Arg^{26}Lys^{23,34}$-bis-(GAB-GTet)-GLP-1(7-38); $Arg^{34}Lys^{23,26}$-bis-(GAB-GTet)-GLP-1(7-38);
$Arg^{26}Lys^{23,34}$-bis-(GAB-GTet)-GLP-1(7-39); $Arg^{34}Lys^{23,26}$-bis-(GAB-GTet)-GLP-1(7-39);

$Arg^{26}Lys^{27,34}$-bis-(GAB-GTet)-GLP-1(7-36); $Arg^{34}Lys^{27,26}$-bis-(GAB-GTet)-GLP-1(7-36);
$Arg^{26}Lys^{27,34}$-bis-(GAB-GTet)-GLP-1(7-37); $Arg^{34}Lys^{27,26}$-bis-(GAB-GTet)-GLP-1(7-37);
$Arg^{26}Lys^{27,34}$-bis-(GAB-GTet)-GLP-1(7-38); $Arg^{34}Lys^{27,26}$-bis-(GAB-GTet)-GLP-1(7-38);
$Arg^{26}Lys^{27,34}$-bis-(GAB-GTet)-GLP-1(7-39); $Arg^{34}Lys^{27,26}$-bis-(GAB-GTet)-GLP-1(7-39);

$Gly^{8}Lys^{26,34}$-bis-(GAB-GTet)-GLP-1(7-36); $Gly^{8}Lys^{26,34}$-bis-(GAB-GTet)-GLP-1(7-37); $Gly^{8}Lys^{26,34}$-bis-(GAB-GTet)-GLP-1(7-38); $Gly^{8}Lys^{26,34}$-bis-(GAB-GTet)-GLP-1(7-39)

$Gly^{8}Arg^{26}Lys^{34,36}$-bis-(GAB-GTet)-GLP-1(7-36); $Gly^{8}Arg^{34}Lys^{26,36}$-bis-(GAB-GTet)-GLP-1(7-36); $Gly^{8}Arg^{26}Lys^{34,36}$-bis-(GAB-GTet)-GLP-1(7-37); $Gly^{8}Arg^{34}Lys^{26,36}$-bis-(GAB-GTet)-GLP-1(7-37); $Gly^{8}Arg^{26}Lys^{34,37}$-bis-(GAB-GTet)-GLP-1(7-37); $Gly^{8}Arg^{34}Lys^{26,37}$-bis-(GAB-GTet)-GLP-1(7-37); $Gly^{8}Arg^{26}Lys^{34,38}$-bis-(GAB-GTet)-GLP-1(7-38); $Gly^{8}Arg^{34}Lys^{26,38}$-bis-(GAB-GTet)-GLP-1(7-38); $Gly^{8}Arg^{26,34}Lys^{36,38}$-bis-(GAB-GTet)-GLP-1(7-38); $Gly^{8}Arg^{26}Lys^{34,39}$-bis-(GAB-GTet)-GLP-1(7-39); $Gly^{8}Arg^{34}Lys^{26,39}$-bis-(GAB-GTet)-GLP-1(7-39); $Gly^{8}Arg^{26,34}Lys^{36,39}$-bis-(GAB-GTet)-GLP-1(7-39);

$Val^{8}Lys^{26,34}$-bis-(GAB-GTet)-GLP-1(7-36); $Val^{8}Lys^{26,34}$-bis-(GAB-GTet)-GLP-1(7-37); $Val^{8}Lys^{26,34}$-bis-(GAB-GTet)-GLP-1(7-38); $Val^{8}Lys^{26,34}$-bis-(GAB-GTet)-GLP-1(7-39)

$Val^{8}Arg^{26}Lys^{34,36}$-bis-(GAB-GTet)-GLP-1(7-36); $Val^{8}Arg^{34}Lys^{26,36}$-bis-(GAB-GTet)-GLP-1(7-36); $Val^{8}Arg^{26}Lys^{34,36}$-bis-(GAB-GTet)-GLP-1(7-37); $Val^{8}Arg^{34}Lys^{26,36}$-bis-(GAB-GTet)-GLP-1(7-37); $Val^{8}Arg^{26}Lys^{34,37}$-bis-(GAB-GTet)-GLP-1(7-37); $Val^{8}Arg^{34}Lys^{26,37}$-bis-(GAB-GTet)-GLP-1(7-37); $Val^{8}Arg^{26}Lys^{34,38}$-bis-(GAB-GTet)-GLP-1(7-38); $Val^{8}Arg^{34}Lys^{26,38}$-bis-(GAB-GTet)-GLP-1(7-38); $Val^{8}Arg^{26,34}Lys^{36,38}$-bis-(GAB-GTet)-GLP-1(7-38); $Val^{8}Arg^{26}Lys^{34,39}$-bis-(GAB-GTet)-GLP-1(7-39); $Val^{8}Arg^{34}Lys^{26,39}$-bis-(GAB-GTet)-GLP-1(7-39); $Val^{8}Arg^{26,34}Lys^{36,39}$-bis-(GAB-GTet)-GLP-1(7-39);

$Ser^{8}Lys^{26,34}$-bis-(GAB-GTet)-GLP-1(7-36); $Ser^{8}Lys^{26,34}$-bis-(GAB-GTet)-GLP-1(7-37); $Ser^{8}Lys^{26,34}$-bis-(GAB-GTet)-GLP-1(7-38); $Ser^{8}Lys^{26,34}$-bis-(GAB-GTet)-GLP-1(7-39)

$Ser^{8}Arg^{26}Lys^{34,36}$-bis-(GAB-GTet)-GLP-1(7-36); $Ser^{8}Arg^{34}Lys^{26,36}$-bis-(GAB-GTet)-GLP-1(7-36); $Ser^{8}Arg^{26}Lys^{34,36}$-bis-(GAB-GTet)-GLP-1(7-37); $Ser^{8}Arg^{34}Lys^{26,36}$-bis-(GAB-GTet)-GLP-1(7-37); $Ser^{8}Arg^{26}Lys^{34,37}$-bis-(GAB-GTet)-GLP-1(7-37); $Ser^{8}Arg^{34}Lys^{26,37}$-bis-(GAB-GTet)-GLP-1(7-37); $Ser^{8}Arg^{26}Lys^{34,38}$-bis-(GAB-GTet)-GLP-1(7-38); $Ser^{8}Arg^{34}Lys^{26,38}$-bis-(GAB-GTet)-GLP-1(7-38); $Ser^{8}Arg^{26,34}Lys^{36,38}$-bis-(GAB-GTet)-GLP-1(7-38); $Ser^{8}Arg^{26}Lys^{34,39}$-bis-(GAB-GTet)-GLP-1(7-39); $Ser^{8}Arg^{34}Lys^{26,39}$-bis-(GAB-GTet)-GLP-1(7-39); $Ser^{8}Arg^{26,34}Lys^{36,39}$-bis-(GAB-GTet)-GLP-1(7-39);

$Thr^{8}Lys^{26,34}$-bis-(GAB-GTet)-GLP-1(7-36); $Thr^{8}Lys^{26,34}$-bis-(GAB-GTet)-GLP-1(7-37); $Thr^{8}Lys^{26,34}$-bis-(GAB-GTet)-GLP-1(7-38); $Thr^{8}Lys^{26,34}$-bis-(GAB-GTet)-GLP-1(7-39)

$Thr^{8}Arg^{26}Lys^{34,36}$-bis-(GAB-GTet)-GLP-1(7-36); $Thr^{8}Arg^{34}Lys^{26,36}$-bis-(GAB-GTet)-GLP-1(7-36); $Thr^{8}Arg^{26}Lys^{34,36}$-bis-(GAB-GTet)-GLP-1(7-37); $Thr^{8}Arg^{34}Lys^{26,36}$-bis-(GAB-GTet)-GLP-1(7-37); $Thr^{8}Arg^{26}Lys^{34,37}$-bis-(GAB-GTet)-GLP-1(7-37); $Thr^{8}Arg^{34}Lys^{26,37}$-bis-(GAB-GTet)-GLP-1(7-37); $Thr^{8}Arg^{26}Lys^{34,38}$-bis-(GAB-GTet)-GLP-1(7-38); $Thr^{8}Arg^{34}Lys^{26,38}$-bis-(GAB-GTet)-GLP-1(7-38); $Thr^{8}Arg^{26,34}Lys^{36,38}$-bis-(GAB-GTet)-GLP-1(7-38); $Thr^{8}Arg^{26}Lys^{34,39}$-bis-(GAB-GTet)-GLP-1(7-

39); $Thr^{8}Arg^{34}Lys^{26,39}$-bis-(GAB-GTet)-GLP-1(7-39); $Thr^{8}Arg^{26,34}Lys^{36,39}$-bis-(GAB-GTet)-GLP-1(7-39);

$Lys^{26,34}$-bis-(GAB-GHex)-GLP-1(7-36); $Lys^{26,34}$-bis-(GAB-GHex)-GLP-1(7-37); $Lys^{26,34}$-bis-(GAB-GHex)-GLP-1(7-38); $Lys^{26,34}$-bis-(GAB-GHex)-GLP-1(7-39)

$Arg^{26}Lys^{34,36}$-bis-(GAB-GHex)-GLP-1(7-36); $Arg^{34}Lys^{26,36}$-bis-(GAB-GHex)-GLP-1(7-36); $Arg^{26}Lys^{34,36}$-bis-(GAB-GHex)-GLP-1(7-37); $Arg^{34}Lys^{26,36}$-bis-(GAB-GHex)-GLP-1(7-37); $Arg^{26}Lys^{34,37}$-bis-(GAB-GHex)-GLP-1(7-37); $Arg^{34}Lys^{26,37}$-bis-(GAB-GHex)-GLP-1(7-37); $Arg^{26}Lys^{34,39}$-bis-(GAB-GHex)-GLP-1(7-39); $Arg^{34}Lys^{26,39}$-bis-(GAB-GHex)-GLP-1(7-39); $Arg^{26,34}Lys^{36,39}$-bis-(GAB-GHex)-GLP-1(7-39);

$Arg^{26}Lys^{18,34}$-bis-(GAB-GHex)-GLP-1(7-36); $Arg^{34}Lys^{18,26}$-bis-(GAB-GHex)-GLP-1(7-36); $Arg^{26}Lys^{18,34}$-bis-(GAB-GHex)-GLP-1(7-37); $Arg^{34}Lys^{18,26}$-bis-(GAB-GHex)-GLP-1(7-37); $Arg^{26}Lys^{18,34}$-bis-(GAB-GHex)-GLP-1(7-38); $Arg^{34}Lys^{18,26}$-bis-(GAB-GHex)-GLP-1(7-38); $Arg^{26}Lys^{18,34}$-bis-(GAB-GHex)-GLP-1(7-39); $Arg^{34}Lys^{18,26}$-bis-(GAB-GHex)-GLP-1(7-39);

$Arg^{26}Lys^{23,34}$-bis-(GAB-GHex)-GLP-1(7-36); $Arg^{34}Lys^{23,26}$-bis-(GAB-GHex)-GLP-1(7-36); $Arg^{26}Lys^{23,34}$-bis-(GAB-GHex)-GLP-1(7-37); $Arg^{34}Lys^{23,26}$-bis-(GAB-GHex)-GLP-1(7-37); $Arg^{26}Lys^{23,34}$-bis-(GAB-GHex)-GLP-1(7-38); $Arg^{34}Lys^{23,26}$-bis-(GAB-GHex)-GLP-1(7-38); $Arg^{26}Lys^{23,34}$-bis-(GAB-GHex)-GLP-1(7-39); $Arg^{34}Lys^{23,26}$-bis-(GAB-GHex)-GLP-1(7-39);

$Arg^{26}Lys^{27,34}$-bis-(GAB-GHex)-GLP-1(7-36); $Arg^{34}Lys^{27,26}$-bis-(GAB-GHex)-GLP-1(7-36); $Arg^{26}Lys^{27,34}$-bis-(GAB-GHex)-GLP-1(7-37); $Arg^{34}Lys^{27,26}$-bis-(GAB-GHex)-GLP-1(7-37); $Arg^{26}Lys^{27,34}$-bis-(GAB-GHex)-GLP-1(7-38); $Arg^{34}Lys^{27,26}$-bis-(GAB-GHex)-GLP-1(7-38); $Arg^{26}Lys^{27,34}$-bis-(GAB-GHex)-GLP-1(7-39); $Arg^{34}Lys^{27,26}$-bis-(GAB-GHex)-GLP-1(7-39);

$Gly^{8}Lys^{26,34}$-bis-(GAB-GHex)-GLP-1(7-36); $Gly^{8}Lys^{26,34}$-bis-(GAB-GHex)-GLP-1(7-37); $Gly^{8}Lys^{26,34}$-bis-(GAB-GHex)-GLP-1(7-38); $Gly^{8}Lys^{26,34}$-bis-(GAB-GHex)-GLP-1(7-39)

$Gly^{8}Arg^{26}Lys^{34,36}$-bis-(GAB-GHex)-GLP-1(7-36); $Gly^{8}Arg^{34}Lys^{26,36}$-bis-(GAB-GHex)-GLP-1(7-36); $Gly^{8}Arg^{26}Lys^{34,36}$-bis-(GAB-GHex)-GLP-1(7-37); $Gly^{8}Arg^{34}Lys^{26,36}$-bis-(GAB-GHex)-GLP-1(7-37); $Gly^{8}Arg^{26}Lys^{34,37}$-bis-(GAB-GHex)-GLP-1(7-37); $Gly^{8}Arg^{34}Lys^{26,37}$-bis-(GAB-GHex)-GLP-1(7-37); $Gly^{8}Arg^{26}Lys^{34,38}$-bis-(GAB-GHex)-GLP-1(7-38); $Gly^{8}Arg^{34}Lys^{26,38}$-bis-(GAB-GHex)-GLP-1(7-38); $Gly^{8}Arg^{26,34}Lys^{36,38}$-bis-(GAB-GHex)-GLP-1(7-38); $Gly^{8}Arg^{26}Lys^{34,39}$-bis-(GAB-GHex)-GLP-1(7-39); $Gly^{8}Arg^{34}Lys^{26,39}$-bis-(GAB-GHex)-GLP-1(7-39); $Gly^{8}Arg^{26,34}Lys^{36,39}$-bis-(GAB-GHex)-GLP-1(7-39);

$Val^{8}Lys^{26,34}$-bis-(GAB-GHex)-GLP-1(7-36); $Val^{8}Lys^{26,34}$-bis-(GAB-GHex)-GLP-1(7-37); $Val^{8}Lys^{26,34}$-bis-(GAB-GHex)-GLP-1(7-38); $Val^{8}Lys^{26,34}$-bis-(GAB-GHex)-GLP-1(7-39)

$Val^{8}Arg^{26}Lys^{34,36}$-bis-(GAB-GHex)-GLP-1(7-36); $Val^{8}Arg^{34}Lys^{26,36}$-bis-(GAB-GHex)-GLP-1(7-36); $Val^{8}Arg^{26}Lys^{34,36}$-bis-(GAB-GHex)-GLP-1(7-37); $Val^{8}Arg^{34}Lys^{26,36}$-bis-(GAB-GHex)-GLP-1(7-37);

$Val^{8}Arg^{26}Lys^{34,37}$-bis-(GAB-GHex)-GLP-1(7-37); $Val^{8}Arg^{34}Lys^{26,37}$-bis-(GAB-GHex)-GLP-1(7-37); $Val^{8}Arg^{26}Lys^{34,38}$-bis-(GAB-GHex)-GLP-1(7-38); $Val^{8}Arg^{34}Lys^{26,38}$-bis-(GAB-GHex)-GLP-1(7-38); $Val^{8}Arg^{26,34}Lys^{36,38}$-bis-(GAB-GHex)-GLP-1(7-38); $Val^{8}Arg^{26}Lys^{34,39}$-bis-(GAB-GHex)-GLP-1(7-39); $Val^{8}Arg^{34}Lys^{26,39}$-bis-(GAB-GHex)-GLP-1(7-39); $Val^{8}Arg^{26,34}Lys^{36,39}$-bis-(GAB-GHex)-GLP-1(7-39);

$Ser^{8}Lys^{26,34}$-bis-(GAB-GHex)-GLP-1(7-36); $Ser^{8}Lys^{26,34}$-bis-(GAB-GHex)-GLP-1(7-37); $Ser^{8}Lys^{26,34}$-bis-(GAB-GHex)-GLP-1(7-38); $Ser^{8}Lys^{26,34}$-bis-(GAB-GHex)-GLP-1(7-39)

$Ser^{8}Arg^{26}Lys^{34,36}$-bis-(GAB-GHex)-GLP-1(7-36); $Ser^{8}Arg^{34}Lys^{26,36}$-bis-(GAB-GHex)-GLP-1(7-36); $Ser^{8}Arg^{26}Lys^{34,36}$-bis-(GAB-GHex)-GLP-1(7-37); $Ser^{8}Arg^{34}Lys^{26,36}$-bis-(GAB-GHex)-GLP-1(7-37); $Ser^{8}Arg^{26}Lys^{34,37}$-bis-(GAB-GHex)-GLP-1(7-37); $Ser^{8}Arg^{34}Lys^{26,37}$-bis-(GAB-GHex)-GLP-1(7-37); $Ser^{8}Arg^{26}Lys^{34,38}$-bis-(GAB-GHex)-GLP-1(7-38); $Ser^{8}Arg^{34}Lys^{26,38}$-bis-(GAB-GHex)-GLP-1(7-38); $Ser^{8}Arg^{26,34}Lys^{36,38}$-bis-(GAB-GHex)-GLP-1(7-38); $Ser^{8}Arg^{26}Lys^{34,39}$-bis-(GAB-GHex)-GLP-1(7-39); $Ser^{8}Arg^{34}Lys^{26,39}$-bis-(GAB-GHex)-GLP-1(7-39); $Ser^{8}Arg^{26,34}Lys^{36,39}$-bis-(GAB-GHex)-GLP-1(7-39);

$Thr^{8}Lys^{26,34}$-bis-(GAB-GHex)-GLP-1(7-36); $Thr^{8}Lys^{26,34}$-bis-(GAB-GHex)-GLP-1(7-37); $Thr^{8}Lys^{26,34}$-bis-(GAB-GHex)-GLP-1(7-38); $Thr^{8}Lys^{26,34}$-bis-(GAB-GHex)-GLP-1(7-39)

$Thr^{8}Arg^{26}Lys^{34,36}$-bis-(GAB-GHex)-GLP-1(7-36); $Thr^{8}Arg^{34}Lys^{26,36}$-bis-(GAB-GHex)-GLP-1(7-36); $Thr^{8}Arg^{26}Lys^{34,36}$-bis-(GAB-GHex)-GLP-1(7-37); $Thr^{8}Arg^{34}Lys^{26,36}$-bis-(GAB-GHex)-GLP-1(7-37); $Thr^{8}Arg^{26}Lys^{34,37}$-bis-(GAB-GHex)-GLP-1(7-37); $Thr^{8}Arg^{34}Lys^{26,37}$-bis-(GAB-GHex)-GLP-1(7-37); $Thr^{8}Arg^{26}Lys^{34,38}$-bis-(GAB-GHex)-GLP-1(7-38); $Thr^{8}Arg^{34}Lys^{26,38}$-bis-(GAB-GHex)-GLP-1(7-38); $Thr^{8}Arg^{26,34}Lys^{36,38}$-bis-(GAB-GHex)-GLP-1(7-38); $Thr^{8}Arg^{26}Lys^{34,39}$-bis-(GAB-GHex)-GLP-1(7-39); $Thr^{8}Arg^{34}Lys^{26,39}$-bis-(GAB-GHex)-GLP-1(7-39); $Thr^{8}Arg^{26,34}Lys^{36,39}$-bis-(GAB-GHex)-GLP-1(7-39);

$Lys^{26,34}$-bis-(GAB-GOct)-GLP-1(7-36); $Lys^{26,34}$-bis-(GAB-GOct)-GLP-1(7-37); $Lys^{26,34}$-bis-(GAB-GOct)-GLP-1(7-38); $Lys^{26,34}$-bis-(GAB-GOct)-GLP-1(7-39)

$Arg^{26}Lys^{34,36}$-bis-(GAB-GOct)-GLP-1(7-36); $Arg^{34}Lys^{26,36}$-bis-(GAB-GOct)-GLP-1(7-36); $Arg^{26}Lys^{34,36}$-bis-(GAB-GOct)-GLP-1(7-37); $Arg^{34}Lys^{26,36}$-bis-(GAB-GOct)-GLP-1(7-37); $Arg^{26}Lys^{34,37}$-bis-(GAB-GOct)-GLP-1(7-37); $Arg^{34}Lys^{26,37}$-bis-(GAB-GOct)-GLP-1(7-37); $Arg^{26}Lys^{34,39}$-bis-(GAB-GOct)-GLP-1(7-39); $Arg^{34}Lys^{26,39}$-bis-(GAB-GOct)-GLP-1(7-39); $Arg^{26,34}Lys^{36,39}$-bis-(GAB-GOct)-GLP-1(7-39);

$Arg^{26}Lys^{18,34}$-bis-(GAB-GOct)-GLP-1(7-36); $Arg^{34}Lys^{18,26}$-bis-(GAB-GOct)-GLP-1(7-36); $Arg^{26}Lys^{18,34}$-bis-(GAB-GOct)-GLP-1(7-37); $Arg^{34}Lys^{18,26}$-bis-(GAB-GOct)-GLP-1(7-37); $Arg^{26}Lys^{18,34}$-bis-(GAB-GOct)-GLP-1(7-38); $Arg^{34}Lys^{18,26}$-bis-(GAB-GOct)-GLP-1(7-38); $Arg^{26}Lys^{18,34}$-bis-(GAB-GOct)-GLP-1(7-39); $Arg^{34}Lys^{18,26}$-bis-(GAB-GOct)-GLP-1(7-39);

$Arg^{26}Lys^{23,34}$-bis-(GAB-GOct)-GLP-1(7-36); $Arg^{34}Lys^{23,26}$-bis-(GAB-GOct)-GLP-1(7-36);
$Arg^{26}Lys^{23,34}$-bis-(GAB-GOct)-GLP-1(7-37); $Arg^{34}Lys^{23,26}$-bis-(GAB-GOct)-GLP-1(7-37);
$Arg^{26}Lys^{23,34}$-bis-(GAB-GOct)-GLP-1(7-38); $Arg^{34}Lys^{23,26}$-bis-(GAB-GOct)-GLP-1(7-38);
$Arg^{26}Lys^{23,34}$-bis-(GAB-GOct)-GLP-1(7-39); $Arg^{34}Lys^{23,26}$-bis-(GAB-GOct)-GLP-1(7-39);
$Arg^{26}Lys^{27,34}$-bis-(GAB-GOct)-GLP-1(7-36); $Arg^{34}Lys^{27,26}$-bis-(GAB-GOct)-GLP-1(7-36);
$Arg^{26}Lys^{27,34}$-bis-(GAB-GOct)-GLP-1(7-37); $Arg^{34}Lys^{27,26}$-bis-(GAB-GOct)-GLP-1(7-37);
$Arg^{26}Lys^{27,34}$-bis-(GAB-GOct)-GLP-1(7-38); $Arg^{34}Lys^{27,26}$-bis-(GAB-GOct)-GLP-1(7-38);
$Arg^{26}Lys^{27,34}$-bis-(GAB-GOct)-GLP-1(7-39); $Arg^{34}Lys^{27,26}$-bis-(GAB-GOct)-GLP-1(7-39);
$Gly^{8}Lys^{26,34}$-bis-(GAB-GOct)-GLP-1(7-36); $Gly^{8}Lys^{26,34}$-bis-(GAB-GOct)-GLP-1(7-37);
$Gly^{8}Lys^{26,34}$-bis-(GAB-GOct)-GLP-1(7-38); $Gly^{8}Lys^{26,34}$-bis-(GAB-GOct)-GLP-1(7-39)
$Gly^{8}Arg^{26}Lys^{34,36}$-bis-(GAB-GOct)-GLP-1(7-36); $Gly^{8}Arg^{34}Lys^{26,36}$-bis-(GAB-GOct)-GLP-1(7-36);
$Gly^{8}Arg^{26}Lys^{34,36}$-bis-(GAB-GOct)-GLP-1(7-37); $Gly^{8}Arg^{34}Lys^{26,36}$-bis-(GAB-GOct)-GLP-1(7-37);
$Gly^{8}Arg^{26}Lys^{34,37}$-bis-(GAB-GOct)-GLP-1(7-37); $Gly^{8}Arg^{34}Lys^{26,37}$-bis-(GAB-GOct)-GLP-1(7-37);
$Gly^{8}Arg^{26}Lys^{34,38}$-bis-(GAB-GOct)-GLP-1(7-38); $Gly^{8}Arg^{34}Lys^{26,38}$-bis-(GAB-GOct)-GLP-1(7-38);
$Gly^{8}Arg^{26,34}Lys^{36,38}$-bis-(GAB-GOct)-GLP-1(7-38); $Gly^{8}Arg^{26}Lys^{34,39}$-bis-(GAB-GOct)-GLP-1(7-39); $Gly^{8}Arg^{34}Lys^{26,39}$-bis-(GAB-GOct)-GLP-1(7-39); $Gly^{8}Arg^{26,34}Lys^{36,39}$-bis-(GAB-GOct)-GLP-1(7-39);
$Val^{8}Lys^{26,34}$-bis-(GAB-GOct)-GLP-1(7-36); $Val^{8}Lys^{26,34}$-bis-(GAB-GOct)-GLP-1(7-37);
$Val^{8}Lys^{26,34}$-bis-(GAB-GOct)-GLP-1(7-38); $Val^{8}Lys^{26,34}$-bis-(GAB-GOct)-GLP-1(7-39)
$Val^{8}Arg^{26}Lys^{34,36}$-bis-(GAB-GOct)-GLP-1(7-36); $Val^{8}Arg^{34}Lys^{26,36}$-bis-(GAB-GOct)-GLP-1(7-36);
$Val^{8}Arg^{26}Lys^{34,36}$-bis-(GAB-GOct)-GLP-1(7-37); $Val^{8}Arg^{34}Lys^{26,36}$-bis-(GAB-GOct)-GLP-1(7-37);
$Val^{8}Arg^{26}Lys^{34,37}$-bis-(GAB-GOct)-GLP-1(7-37); $Val^{8}Arg^{34}Lys^{26,37}$-bis-(GAB-GOct)-GLP-1(7-37);
$Val^{8}Arg^{26}Lys^{34,38}$-bis-(GAB-GOct)-GLP-1(7-38); $Val^{8}Arg^{34}Lys^{26,38}$-bis-(GAB-GOct)-GLP-1(7-38);
$Val^{8}Arg^{26,34}Lys^{36,38}$-bis-(GAB-GOct)-GLP-1(7-38); $Val^{8}Arg^{26}Lys^{34,39}$-bis-(GAB-GOct)-GLP-1(7-39); $Val^{8}Arg^{34}Lys^{26,39}$-bis-(GAB-GOct)-GLP-1(7-39); $Val^{8}Arg^{26,34}Lys^{36,39}$-bis-(GAB-GOct)-GLP-1(7-39);
$Ser^{8}Lys^{26,34}$-bis-(GAB-GOct)-GLP-1(7-36); $Ser^{8}Lys^{26,34}$-bis-(GAB-GOct)-GLP-1(7-37);
$Ser^{8}Lys^{26,34}$-bis-(GAB-GOct)-GLP-1(7-38); $Ser^{8}Lys^{26,34}$-bis-(GAB-GOct)-GLP-1(7-39)
$Ser^{8}Arg^{26}Lys^{34,36}$-bis-(GAB-GOct)-GLP-1(7-36); $Ser^{8}Arg^{34}Lys^{26,36}$-bis-(GAB-GOct)-GLP-1(7-36);
$Ser^{8}Arg^{26}Lys^{34,36}$-bis-(GAB-GOct)-GLP-1(7-37); $Ser^{8}Arg^{34}Lys^{26,36}$-bis-(GAB-GOct)-GLP-1(7-37);
$Ser^{8}Arg^{26}Lys^{34,37}$-bis-(GAB-GOct)-GLP-1(7-37); $Ser^{8}Arg^{34}Lys^{26,37}$-bis-(GAB-GOct)-GLP-1(7-37);
$Ser^{8}Arg^{26}Lys^{34,38}$-bis-(GAB-GOct)-GLP-1(7-38); $Ser^{8}Arg^{34}Lys^{26,38}$-bis-(GAB-GOct)-GLP-1(7-38);
$Ser^{8}Arg^{26,34}Lys^{36,38}$-bis-(GAB-GOct)-GLP-1(7-38); $Ser^{8}Arg^{26}Lys^{34,39}$-bis-(GAB-GOct)-GLP-1(7-

39); $Ser^{8}Arg^{34}Lys^{26,39}$-bis-(GAB-GOct)-GLP-1(7-39); $Ser^{8}Arg^{26,34}Lys^{36,39}$-bis-(GAB-GOct)-GLP-1(7-39);

$Thr^{8}Lys^{26,34}$-bis-(GAB-GOct)-GLP-1(7-36); $Thr^{8}Lys^{26,34}$-bis-(GAB-GOct)-GLP-1(7-37); $Thr^{8}Lys^{26,34}$-bis-(GAB-GOct)-GLP-1(7-38); $Thr^{8}Lys^{26,34}$-bis-(GAB-GOct)-GLP-1(7-39)

$Thr^{8}Arg^{26}Lys^{34,36}$-bis-(GAB-GOct)-GLP-1(7-36); $Thr^{8}Arg^{34}Lys^{26,36}$-bis-(GAB-GOct)-GLP-1(7-36); $Thr^{8}Arg^{26}Lys^{34,36}$-bis-(GAB-GOct)-GLP-1(7-37); $Thr^{8}Arg^{34}Lys^{26,36}$-bis-(GAB-GOct)-GLP-1(7-37); $Thr^{8}Arg^{26}Lys^{34,37}$-bis-(GAB-GOct)-GLP-1(7-37); $Thr^{8}Arg^{34}Lys^{26,37}$-bis-(GAB-GOct)-GLP-1(7-37); $Thr^{8}Arg^{26}Lys^{34,38}$-bis-(GAB-GOct)-GLP-1(7-38); $Thr^{8}Arg^{34}Lys^{26,38}$-bis-(GAB-GOct)-GLP-1(7-38); $Thr^{8}Arg^{26,34}Lys^{36,38}$-bis-(GAB-GOct)-GLP-1(7-38); $Thr^{8}Arg^{26}Lys^{34,39}$-bis-(GAB-GOct)-GLP-1(7-39); $Thr^{8}Arg^{34}Lys^{26,39}$-bis-(GAB-GOct)-GLP-1(7-39); $Thr^{8}Arg^{26,34}Lys^{36,39}$-bis-(GAB-GOct)-GLP-1(7-39);

$Lys^{26,34}$-bis-(GAB-GLit)-GLP-1(7-36); $Lys^{26,34}$-bis-(GAB-GLit)-GLP-1(7-37); $Lys^{26,34}$-bis-(GAB-GLit)-GLP-1(7-38); $Lys^{26,34}$-bis-(GAB-GLit)-GLP-1(7-39)

$Arg^{26}Lys^{34,36}$-bis-(GAB-GLit)-GLP-1(7-36); $Arg^{34}Lys^{26,36}$-bis-(GAB-GLit)-GLP-1(7-36); $Arg^{26}Lys^{34,36}$-bis-(GAB-GLit)-GLP-1(7-37); $Arg^{34}Lys^{26,36}$-bis-(GAB-GLit)-GLP-1(7-37); $Arg^{26}Lys^{34,37}$-bis-(GAB-GLit)-GLP-1(7-37); $Arg^{34}Lys^{26,37}$-bis-(GAB-GLit)-GLP-1(7-37); $Arg^{26}Lys^{34,39}$-bis-(GAB-GLit)-GLP-1(7-39); $Arg^{34}Lys^{26,39}$-bis-(GAB-GLit)-GLP-1(7-39); $Arg^{26,34}Lys^{36,39}$-bis-(GAB-GLit)-GLP-1(7-39);

$Arg^{26}Lys^{18,34}$-bis-(GAB-GLit)-GLP-1(7-36); $Arg^{34}Lys^{18,26}$-bis-(GAB-GLit)-GLP-1(7-36); $Arg^{26}Lys^{18,34}$-bis-(GAB-GLit)-GLP-1(7-37); $Arg^{34}Lys^{18,26}$-bis-(GAB-GLit)-GLP-1(7-37); $Arg^{26}Lys^{18,34}$-bis-(GAB-GLit)-GLP-1(7-38); $Arg^{34}Lys^{18,26}$-bis-(GAB-GLit)-GLP-1(7-38); $Arg^{26}Lys^{18,34}$-bis-(GAB-GLit)-GLP-1(7-39); $Arg^{34}Lys^{18,26}$-bis-(GAB-GLit)-GLP-1(7-39);

$Arg^{26}Lys^{23,34}$-bis-(GAB-GLit)-GLP-1(7-36); $Arg^{34}Lys^{23,26}$-bis-(GAB-GLit)-GLP-1(7-36); $Arg^{26}Lys^{23,34}$-bis-(GAB-GLit)-GLP-1(7-37); $Arg^{34}Lys^{23,26}$-bis-(GAB-GLit)-GLP-1(7-37); $Arg^{26}Lys^{23,34}$-bis-(GAB-GLit)-GLP-1(7-38); $Arg^{34}Lys^{23,26}$-bis-(GAB-GLit)-GLP-1(7-38); $Arg^{26}Lys^{23,34}$-bis-(GAB-GLit)-GLP-1(7-39); $Arg^{34}Lys^{23,26}$-bis-(GAB-GLit)-GLP-1(7-39);

$Arg^{26}Lys^{27,34}$-bis-(GAB-GLit)-GLP-1(7-36); $Arg^{34}Lys^{27,26}$-bis-(GAB-GLit)-GLP-1(7-36); $Arg^{26}Lys^{27,34}$-bis-(GAB-GLit)-GLP-1(7-37); $Arg^{34}Lys^{27,26}$-bis-(GAB-GLit)-GLP-1(7-37); $Arg^{26}Lys^{27,34}$-bis-(GAB-GLit)-GLP-1(7-38); $Arg^{34}Lys^{27,26}$-bis-(GAB-GLit)-GLP-1(7-38); $Arg^{26}Lys^{27,34}$-bis-(GAB-GLit)-GLP-1(7-39); $Arg^{34}Lys^{27,26}$-bis-(GAB-GLit)-GLP-1(7-39);

$Gly^{8}Lys^{26,34}$-bis-(GAB-GLit)-GLP-1(7-36); $Gly^{8}Lys^{26,34}$-bis-(GAB-GLit)-GLP-1(7-37); $Gly^{8}Lys^{26,34}$-bis-(GAB-GLit)-GLP-1(7-38); $Gly^{8}Lys^{26,34}$-bis-(GAB-GLit)-GLP-1(7-39)

$Gly^{8}Arg^{26}Lys^{34,36}$-bis-(GAB-GLit)-GLP-1(7-36); $Gly^{8}Arg^{34}Lys^{26,36}$-bis-(GAB-GLit)-GLP-1(7-36); $Gly^{8}Arg^{26}Lys^{34,36}$-bis-(GAB-GLit)-GLP-1(7-37); $Gly^{8}Arg^{34}Lys^{26,36}$-bis-(GAB-GLit)-GLP-1(7-37);

$Gly^{8}Arg^{26}Lys^{34,37}$-bis-(GAB-GLit)-GLP-1(7-37); $Gly^{8}Arg^{34}Lys^{26,37}$-bis-(GAB-GLit)-GLP-1(7-37); $Gly^{8}Arg^{26}Lys^{34,38}$-bis-(GAB-GLit)-GLP-1(7-38); $Gly^{8}Arg^{34}Lys^{26,38}$-bis-(GAB-GLit)-GLP-1(7-38); $Gly^{8}Arg^{26,34}Lys^{36,38}$-bis-(GAB-GLit)-GLP-1(7-38); $Gly^{8}Arg^{26}Lys^{34,39}$-bis-(GAB-GLit)-GLP-1(7-39); $Gly^{8}Arg^{34}Lys^{26,39}$-bis-(GAB-GLit)-GLP-1(7-39); $Gly^{8}Arg^{26,34}Lys^{36,39}$-bis-(GAB-GLit)-GLP-1(7-39); $Val^{8}Lys^{26,34}$-bis-(GAB-GLit)-GLP-1(7-36); $Val^{8}Lys^{26,34}$-bis-(GAB-GLit)-GLP-1(7-37); $Val^{8}Lys^{26,34}$-bis-(GAB-GLit)-GLP-1(7-38); $Val^{8}Lys^{26,34}$-bis-(GAB-GLit)-GLP-1(7-39)

$Val^{8}Arg^{26}Lys^{34,36}$-bis-(GAB-GLit)-GLP-1(7-36); $Val^{8}Arg^{34}Lys^{26,36}$-bis-(GAB-GLit)-GLP-1(7-36); $Val^{8}Arg^{26}Lys^{34,36}$-bis-(GAB-GLit)-GLP-1(7-37); $Val^{8}Arg^{34}Lys^{26,36}$-bis-(GAB-GLit)-GLP-1(7-37); $Val^{8}Arg^{26}Lys^{34,37}$-bis-(GAB-GLit)-GLP-1(7-37); $Val^{8}Arg^{34}Lys^{26,37}$-bis-(GAB-GLit)-GLP-1(7-37); $Val^{8}Arg^{26}Lys^{34,38}$-bis-(GAB-GLit)-GLP-1(7-38); $Val^{8}Arg^{34}Lys^{26,38}$-bis-(GAB-GLit)-GLP-1(7-38); $Val^{8}Arg^{26,34}Lys^{36,38}$-bis-(GAB-GLit)-GLP-1(7-38); $Val^{8}Arg^{26}Lys^{34,39}$-bis-(GAB-GLit)-GLP-1(7-39); $Val^{8}Arg^{34}Lys^{26,39}$-bis-(GAB-GLit)-GLP-1(7-39); $Val^{8}Arg^{26,34}Lys^{36,39}$-bis-(GAB-GLit)-GLP-1(7-39); $Ser^{8}Lys^{26,34}$-bis-(GAB-GLit)-GLP-1(7-36); $Ser^{8}Lys^{26,34}$-bis-(GAB-GLit)-GLP-1(7-37); $Ser^{8}Lys^{26,34}$-bis-(GAB-GLit)-GLP-1(7-38); $Ser^{8}Lys^{26,34}$-bis-(GAB-GLit)-GLP-1(7-39)

$Ser^{8}Arg^{26}Lys^{34,36}$-bis-(GAB-GLit)-GLP-1(7-36); $Ser^{8}Arg^{34}Lys^{26,36}$-bis-(GAB-GLit)-GLP-1(7-36); $Ser^{8}Arg^{26}Lys^{34,36}$-bis-(GAB-GLit)-GLP-1(7-37); $Ser^{8}Arg^{34}Lys^{26,36}$-bis-(GAB-GLit)-GLP-1(7-37); $Ser^{8}Arg^{26}Lys^{34,37}$-bis-(GAB-GLit)-GLP-1(7-37); $Ser^{8}Arg^{34}Lys^{26,37}$-bis-(GAB-GLit)-GLP-1(7-37); $Ser^{8}Arg^{26}Lys^{34,38}$-bis-(GAB-GLit)-GLP-1(7-38); $Ser^{8}Arg^{34}Lys^{26,38}$-bis-(GAB-GLit)-GLP-1(7-38); $Ser^{8}Arg^{26,34}Lys^{36,38}$-bis-(GAB-GLit)-GLP-1(7-38); $Ser^{8}Arg^{26}Lys^{34,39}$-bis-(GAB-GLit)-GLP-1(7-39); $Ser^{8}Arg^{34}Lys^{26,39}$-bis-(GAB-GLit)-GLP-1(7-39); $Ser^{8}Arg^{26,34}Lys^{36,39}$-bis-(GAB-GLit)-GLP-1(7-39); $Thr^{8}Lys^{26,34}$-bis-(GAB-GLit)-GLP-1(7-36); $Thr^{8}Lys^{26,34}$-bis-(GAB-GLit)-GLP-1(7-37); $Thr^{8}Lys^{26,34}$-bis-(GAB-GLit)-GLP-1(7-38); $Thr^{8}Lys^{26,34}$-bis-(GAB-GLit)-GLP-1(7-39)

$Thr^{8}Arg^{26}Lys^{34,36}$-bis-(GAB-GLit)-GLP-1(7-36); $Thr^{8}Arg^{34}Lys^{26,36}$-bis-(GAB-GLit)-GLP-1(7-36); $Thr^{8}Arg^{26}Lys^{34,36}$-bis-(GAB-GLit)-GLP-1(7-37); $Thr^{8}Arg^{34}Lys^{26,36}$-bis-(GAB-GLit)-GLP-1(7-37); $Thr^{8}Arg^{26}Lys^{34,37}$-bis-(GAB-GLit)-GLP-1(7-37); $Thr^{8}Arg^{34}Lys^{26,37}$-bis-(GAB-GLit)-GLP-1(7-37); $Thr^{8}Arg^{26}Lys^{34,38}$-bis-(GAB-GLit)-GLP-1(7-38); $Thr^{8}Arg^{34}Lys^{26,38}$-bis-(GAB-GLit)-GLP-1(7-38); $Thr^{8}Arg^{26,34}Lys^{36,38}$-bis-(GAB-GLit)-GLP-1(7-38); $Thr^{8}Arg^{26}Lys^{34,39}$-bis-(GAB-GLit)-GLP-1(7-39); $Thr^{8}Arg^{34}Lys^{26,39}$-bis-(GAB-GLit)-GLP-1(7-39); $Thr^{8}Arg^{26,34}Lys^{36,39}$-bis-(GAB-GLit)-GLP-1(7-39).

Pharmaceutical compositions

The present invention also relates to pharmaceutical compositions comprising a derivative of a GLP-1 analog of the present invention and a pharmaceutically acceptable vehicle or carrier.

Preferably, the pharmaceutical compositions comprise an isotonic agent, a preservative and a buffer. Examples of isotonic agents are sodium chloride, mannitol and glycerol. Examples of preservatives are phenol, m-cresol, methyl p-hydroxybenzoate and benzyl alcohol. Suitable buffers include sodium acetate and sodium phosphate.

The pharmaceutical compositions preferably further comprise a surfactant in order to improve the solubility and/or the stability of the GLP-1 derivative.

The pharmaceutical compositions preferably also comprise zinc.

The pharmaceutial compositions preferably further comprise another antidiabetic agent. The term "antidiabetic agent" includes compounds for the treatment and/or prophylaxis of insulin resistance and diseases wherein insulin resistance is the pathophysiological mechanism.

In one embodiment of this invention, the antidiabetic agent is an insulin, more preferably human insulin.

In another embodiment the antidiabetic agent is a hypoglycaemic agent, preferably an oral hypoglycaemic agent. Oral hypoglycaemic agents are preferably selected from the group consisting of sulfonylureas, biguanides, thiazolidinediones, glucosidase inhibitors, glucagon antagonists, GLP-1 agonists, potasium channel openers, insulin sensitizers, hepatic enzyme inhibitors, glucose uptake modulators, compounds modifying the lipid metabolism, compounds lowering food intake, and agents acting on the ATP-dependent potassium channel of the ß-cells. Preferred sulfonylureas are tolbutamide, glibenclamide, glipizide and gliclazide. A preferred biguanide is metformin. Preferred thiazolidinediones are troglitazone and ciglitazone. A preferred glucosidase inhibitors is acarbose. Preferred agents acting on the ATP-dependent potassium channel of the ß-cells are: glibenclamide, glipizide, gliclazide, and repaglinide.

The pharmaceutical compositions of the present invention may be administered parenterally to patients in need of such a treatment. Parenteral administration may be performed by subcutaneous, intramuscular or intravenous injection by means of a syringe, optionally a pen-like syringe. Alternatively, parenteral administration can be performed by means of an infusion pump. A further option is a composition which may be a powder or a liquid for the administration of the GLP-1 derivative in the form of a nasal or pulmonal spray. As a still further option, the GLP-1 derivatives of the invention can also be administered transdermally, *e.g.* from a patch, optionally a iontophoretic patch, or transmucosally, *e.g.* bucally.

The pharmaceutical compositions of the present invention may be prepared by conventional techniques, *e.g.* as described in Remington's *Pharmaceutical Sciences*, 1985 or in Remington: *The Science and Practice of Pharmacy*, 19th edition, 1995.

For example, injectable compositions of the GLP-1 derivative of the invention can be prepared using the conventional techniques of the pharmaceutical industry which involves dissolving and mixing the ingredients as appropriate to give the desired end product.

A composition for nasal administration of certain peptides may, for example, be prepared as described in European Patent No. 272097 (to Novo Nordisk A/S) or in WO 93/18785.

In a preferred embodiment of the present invention, the GLP-1 derivative is provided in the form of a composition suitable for administration by injection. Such a composition can either be an injectable solution ready for use or it can be an amount of a solid composition, *e.g.* a lyophilised product, which has to be dissolved in a solvent before it can be injected. The injectable solution preferably contains not less than about 2 mg/ml, preferably not less than about 5 mg/ml, more preferred not less than about 10 mg/ml of the GLP-1 derivative and, preferably, not more than about 100 mg/ml of the GLP-1 derivative.

Uses

The present invention also relates to the use of a GLP-1 derivative of the invention for the preparation of a medicament which has a protracted profile of action relative to GLP-1(7-37).

The present invention relates also to the use of a GLP-1 derivative of the invention for the preparation of a medicament with protracted effect for the treatment of non-insulin dependent diabetes mellitus.

The present invention also relates to the use of a GLP-1 derivative of the invention for the preparation of a medicament with protracted effect for the treatment of insulin dependent diabetes mellitus.

The present invention also relates to the use of a GLP-1 derivative of the invention for the preparation of a medicament with protracted effect for the treatment of obesity.

In a further preferred embodiment, the present invention relates to a method of treating insulin dependent or non-insulin dependent diabetes mellitus in a patient in need of such a treatment, comprising administering to the patient a therapeutically effective amount of a derivative of GLP-1 analog of the present invention together with a pharmaceutically acceptable carrier.

Methods of Production

The parent peptide can be produced by a method which comprises culturing a host cell containing a DNA sequence encoding the polypeptide and capable of expressing the poly-

peptide in a suitable nutrient medium under conditions permitting the expression of the peptide, after which the resulting peptide is recovered from the culture.

The medium used to culture the cells may be any conventional medium suitable for growing the host cells, such as minimal or complex media containing appropriate supplements. Suitable media are available from commercial suppliers or may be prepared of published recipes (*e.g.* in catalogues of the American Type Culture Collection). The peptide produced by the cells may then be recovered from the culture medium by conventional procedures including separating the host cells from the medium by centrifugation or filtration, precipitating the proteinaceous components of the supernatant or filtrate by means of a salt, *e.g.* ammonium sulphate, purification by a variety of chromatographic procedures, *e.g.* ion exchange chromatography, gel filtration chromatography, affinity chromatography, or the like, dependent on the type of peptide in question.

The DNA sequence encoding the parent peptide may suitably be of genomic or cDNA origin, for instance obtained by preparing a genomic or cDNA library and screening for DNA sequences coding for all or part of the peptide by hybridisation using synthetic oligonucleotide probes in accordance with standard techniques (see, for example, Sambrook, J, Fritsch, EF and Maniatis, T, *Molecular Cloning: A Laboratory Manual*, Cold Spring Harbor Laboratory Press, New York, 1989). The DNA sequence encoding the peptide may also be prepared synthetically by established standard methods, *e.g.* the phosphoamidite method described by Beaucage and Caruthers, *Tetrahedron Letters* **22** (1981), 1859 - 1869, or the method described by Matthes *et al.*, *EMBO Journal* **3** (1984), 801 - 805. The DNA sequence may also be prepared by polymerase chain reaction using specific primers, for instance as described in US 4,683,202 or Saiki *et al.*, *Science* **239** (1988), 487 - 491.

The DNA sequence may be inserted into any vector which may conveniently be subjected to recombinant DNA procedures, and the choice of vector will often depend on the host cell into which it is to be introduced. Thus, the vector may be an autonomously replicating vector, *i.e.* a vector which exists as an extrachromosomal entity, the replication of which is independent of chromosomal replication, *e.g.* a plasmid. Alternatively, the vector may be one which, when introduced into a host cell, is integrated into the host cell genome and replicated together with the chromosome(s) into which it has been integrated.

The vector is preferably an expression vector in which the DNA sequence encoding the peptide is operably linked to additional segments required for transcription of the DNA, such as a promoter. The promoter may be any DNA sequence which shows transcriptional activity in the host cell of choice and may be derived from genes encoding proteins either homo-

logous or heterologous to the host cell. Examples of suitable promoters for directing the transcription of the DNA encoding the peptide of the invention in a variety of host cells are well known in the art, cf. for instance Sambrook *et al.*, *supra*.

The DNA sequence encoding the peptide may also, if necessary, be operably connected to a suitable terminator, polyadenylation signals, transcriptional enhancer sequences, and translational enhancer sequences. The recombinant vector of the invention may further comprise a DNA sequence enabling the vector to replicate in the host cell in question.

The vector may also comprise a selectable marker, *e.g.* a gene the product of which complements a defect in the host cell or one which confers resistance to a drug, *e.g.* ampicillin, kanamycin, tetracyclin, chloramphenicol, neomycin, hygromycin or methotrexate.

To direct a parent peptide of the present invention into the secretory pathway of the host cells, a secretory signal sequence (also known as a leader sequence, prepro sequence or pre sequence) may be provided in the recombinant vector. The secretory signal sequence is joined to the DNA sequence encoding the peptide in the correct reading frame. Secretory signal sequences are commonly positioned 5' to the DNA sequence encoding the peptide. The secretory signal sequence may be that normally associated with the peptide or may be from a gene encoding another secreted protein.

The procedures used to ligate the DNA sequences coding for the present peptide, the promoter and optionally the terminator and/or secretory signal sequence, respectively, and to insert them into suitable vectors containing the information necessary for replication, are well known to persons skilled in the art (cf., for instance, Sambrook *et al.*., *supra*).

The host cell into which the DNA sequence or the recombinant vector is introduced may be any cell which is capable of producing the present peptide and includes bacteria, yeast, fungi and higher eukaryotic cells. Examples of suitable host cells well known and used in the art are, without limitation, *E. coli*, *Saccharomyces cerevisiae*, or mammalian BHK or CHO cell lines.

The GLP-1 derivatives of this invention can be used in the treatment of various diseases. The particular GLP-1 derivative to be used and the optimal dose level for any patient will depend on the disease to be treated and on a variety of factors including the efficacy of the specific peptide derivative employed, the age, body weight, physical activity, and diet of the patient, on a possible combination with other drugs, and on the severity of the case. It is recommended that the dosage of the GLP-1 derivative of this invention be determined for each individual patient by those skilled in the art.

In particular, it is envisaged that the GLP-1 derivative will be useful for the preparation of a medicament with a protracted profile of action for the treatment of non-insulin dependent diabetes mellitus and/or for the treatment of obesity.

The present invention is further illustrated by the following examples which, however, are not to be construed as limiting the scope of protection. The features disclosed in the foregoing description and in the following examples may, both separately and in any combination thereof, be material for realising the invention in diverse forms thereof.

EXAMPLES

The following acronyms for commercially available chemicals are used:

DMF	:	N,N-Dimethylformamide.
DCC	:	N,N-Dicyclohexylcarbodiimide
NMP	:	N-Methyl-2-pyrrolidone.
EDPA	:	N-Ethyl-N,N-diisopropylamine.
EGTA	:	Ethylene glycol-bis(β-aminoethyl ether)-N,N,N',N'-tetraacetic acid.
GTP		Guanosine 5'-triphosphate.
TFA	:	Trifluoroacetic acid.
THF	:	Tetrahydrofuran
H-Glu(OH)-OBu^t:		L-Glutamic acid α-tert-butyl ester
Cap-ONSu:		Octanoic acid 2,5-dioxopyrrolidin-1-yl ester
Lau-ONSu:		Dodecanoic acid 2,5-dioxopyrrolidin-1-yl ester
Myr-ONSu:		Tetradecanoic acid 2,5-dioxopyrrolidin-1-yl ester.
Pal-ONSu:		Hexadecanoic acid 2,5-dioxopyrrolidin-1-yl ester.
Ste-ONSu		Octadecanoic acid 2,5-dioxopyrrolidin-1-yl ester.
Cac-ONSu:		Decanoic acid 2,5-dioxopyrrolidin-1-yl ester.

Abbreviations:

PDMS: Plasma Desorption Mass Spectrometry

MALDI-MS: Matrix Assisted Laser Desorption/Ionisation Mass Spectrometry

HPLC: High Performance Liquid Chromatography

amu: atomic mass units

Lit-Glu(ONSu)-OBu^t: N$^\alpha$-Lithochoyl-L-glutamic acid α-t-butyl ester γ-2,5-dioxopyrrolidin-1-yl ester

Cap-Glu(ONSu)-OBu^t: N^α-Octanoyl-L-glutamic acid α-t-butyl ester γ-2,5-dioxopyrrolidin-1-yl ester

Cac-Glu(ONSu)-OBu^t: N^α-Decanoyl-L-glutamic acid α-t-butyl ester γ-2,5-dioxopyrrolidin-1-yl ester

Lau-Glu(ONSu)-OBu^t: N^α-Dodecanoyl-L-glutamic acid α-t-butyl ester γ-2,5-dioxopyrrolidin-1-yl ester

Myr-Glu(ONSu)-OBu^t: N^α-Tetradecanoyl-L-glutamic acid α-t-butyl ester γ-2,5-dioxopyrrolidin-1-yl ester

Pal-Glu(ONSu)-OBu^t : N^α-Hexadecanoyl-(L)-glutamic acid α-t-butyl-γ-2,5-dioxopyrrolidin-1-yl diester.

Ste-Glu(ONSu)-OBu^t : N^α-Octadecanoyl-(L)-glutamic acid α-t-butyl-γ-2,5-dioxopyrrolidin-1-yl diester

Lau-β-Ala-ONSu: N^β-Dodecanoyl-β-alanine 2,5-dioxopyrrolidin-1-yl ester

Pal-β-Ala-ONSu: N^β-Hexadecanoyl-β-alanine 2,5-dioxopyrrolidin-1-yl ester

Lau-GABA-ONSu: N^γ-Dodecanoyl-γ-aminobutyric acid 2,5-dioxopyrrolidin-1-yl ester

Myr-GABA-ONSu: N^γ-Tetradecanoyl-γ-aminobutyric acid 2,5-dioxopyrrolidin-1-yl ester

Pal-GABA-ONSu: N^γ-Hexadecanoyl-γ-aminobutyric acid 2,5-dioxopyrrolidin-1-yl ester

Ste-GABA-ONSu: N^γ-Octadecanoyl-γ-aminobutyric acid 2,5-dioxopyrrolidin-1-yl ester

Pal-Isonip-ONSu: N-Hexadecanoyl-piperidine-4-carboxylic acid 2,5-dioxopyrrolidin-1-yl ester

Pal-Glu(OBu^t)-ONSu: N^α-Hexadecanoyl-L-glutamic acid α-2,5-dioxopyrrolidin-1-yl ester γ-t-butyl ester

HOOC-$(CH_2)_6$-COONSu: ω–Carboxyheptanoic acid 2,5-dioxopyrrolidin-1-yl ester.

HOOC-$(CH_2)_{10}$-COONSu: ω–Carboxyundecanoic acid 2,5-dioxopyrrolidin-1-yl ester.

HOOC-$(CH_2)_{12}$-COONSu: ω–Carboxytridecanoic acid 2,5-dioxopyrrolidin-1-yl ester.

HOOC-$(CH_2)_{14}$-COONSu: ω–Carboxypentadecanoic acid 2,5-dioxopyrrolidin-1-yl ester.

HOOC-$(CH_2)_{16}$-COONSu: ω–Carboxyheptadecanoic acid 2,5-dioxopyrrolidin-1-yl ester.

HOOC-$(CH_2)_{18}$-COONSu: ω–Carboxynonadecanoic acid 2,5-dioxopyrrolidin-1-yl ester.

Analytical

Plasma Desorption Mass Spectrometry

Sample preparation:

The sample is dissolved in 0.1 % TFA/EtOH (1:1) at a concentration of 1 µg/µl. The sample solution (5-10 µl) is placed on a nitrocellulose target (Bio-ion AB, Uppsala, Sweden)

and allowed to adsorb to the target surface for 2 minutes. The target is subsequently rinsed with 2x25 µl 0.1 % TFA and spin-dried. Finally, the nitrocellulose target is placed in a target carrousel and introduced into the mass spectrometer.

MS analysis:

PDMS analysis was carried out using a Bio-ion 20 time-of flight instrument (Bio-ion Nordic AB, Uppsala, Sweden). An acceleration voltage of 15 kV was applied and molecular ions formed by bombardment of the nitrocellulose surface with 252-Cf fission fragments were accelerated towards a stop detector. The resulting time-of-flight spectrum was calibrated into a true mass spectrum using the H^+ and NO^+ ions at m/z 1 and 30, respectively. Mass spectra were generally accumulated for $1.0x10^6$ fission events corresponding to 15-20 minutes. Resulting assigned masses all correspond to isotopically averaged molecular masses. The accuracy of mass assignment is generally better than 0.1 %.

MALDI-MS

MALDI-TOF MS analysis was carried out using a Voyager RP instrument (PerSeptive Biosystems Inc., Framingham, MA) equipped with delayed extraction and operated in linear mode. Alpha-cyano-4-hydroxy-cinnamic acid was used as matrix, and mass assignments were based on external calibration.

Example 1

Synthesis of $Arg^{26,34}$, Lys^{36} (N^{ε}-(γ-glutamyl(N^{α}-hexadecanoyl))) GLP-1 (7-36)-OH.

To a mixture of $Arg^{26,34}$, Lys^{36} GLP-1 (7-36)-OH (12.2 mg, 3.67 µmol), EDPA (13.3 mg, 103 µmol), NMP (1.71 ml) and water (855 µl) was added a solution of Pal-Glu(ONSu)-OBu^t (5.94 mg, 11 µmol), prepared as described in PCT application no. PCT/DK97/00340, in NMP (148 µl). The reaction mixture was gently shaken for 5 min. at room temperature, and then allowed to stand for an additional 90 min. at room temperature. The reaction was quenched by the addition of a solution of glycine (6 mg, 81 µmol) in water (0.6 ml). A 0.5 % aqueous solution of ammonium-acetate (38 ml) was added, and the resulting mixture eluted onto a Varian 5g C8 Mega Bond Elut®, the immobilised compound washed with 5% aqueous acetonitril (20 ml), and finally liberated from the cartridge by elution with TFA (25 ml). The eluate was concentrated *in vacuo*, and the residue purified by column chromatography using a cyanopropyl column (Zorbax 300SB-CN) and a standard acetonitril/TFA system. The column was heated to 65°C and the acetonitril gradient was 0-100% in 60 minutes. The title

compound (3.1 mg, 23 %) was isolated, and the product was analysed by PDMS. The m/z value for the protonated molecular ion was found to be 3695 +- 3. The resulting molecular weight is thus 3694 +- 3 amu (theoretical value 3694 amu).

Example 2

Synthesis of $Arg^{26,34}$,Lys^{36} (N^{ε}-(γ-glutamyl(N^{α}-octadecanoyl))) GLP-1 (7-36)-OH.

To a mixture of $Arg^{26,34}$,Lys^{36} GLP-1 (7-36)-OH (12.2 mg, 3.7 μmol), EDPA (13.3 mg, 103 μmol), NMP (1.71 ml) and water (855 μl) was added a solution of Ste-Glu(ONSu)-OBu^t (6.25 mg, 11 μmol), prepared as described in PCT application no. PCT/DK97/00340, in NMP (1 ml). The reaction mixture was gently shaken for 5 min. at room temperature, and then allowed to stand for an additional 90 min. at room temperature. The reaction was quenched by the addition of a solution of glycine (6 mg, 81 μmol) in water (0.6 ml). A 0.5 % aqueous solution of ammonium acetate (54 ml) was added, and the resulting mixture eluted onto a Varian 5g C8 Mega Bond Elut®, the immobilised compound washed with 5% aqueous acetonitril (20 ml), and finally liberated from the cartridge by elution with TFA (25 ml). The eluate was concentrated *in vacuo*, and the residue purified by column chromatography using a cyanopropyl column (Zorbax 300SB-CN) and a standard acetonitril/TFA system. The column was heated to 65°C and the acetonitril gradient was 0-100% in 60 minutes. The title compound (3.7 mg, 27 %) was isolated, and the product was analysed by PDMS. The m/z value for the protonated molecular ion was found to be 3723 +- 3. The resulting molecular weight is thus 3722 +- 3 amu (theoretical value 3722 amu).

Example 3

Synthesis of lithocholic acid 2,5-dioxopyrrolidin-1-yl ester.

To a solution of lithocholic acid (5.44 g, 14.3 mmol) in a mixture of anhydrous THF (120 ml) and anhydrous acetonitril (30 ml) was added N-hydroxysuccinimide (1.78 g, 15 mmol). The mixture was cooled to 10°C, a solution of DCC (3.44 g, 16.7 mmol) in anhydrous THF (30 ml) was added drop wise, and the resulting reaction mixture stirred for 16 h at room temperature. The reaction mixture was filtered and partitioned between dichloromethane (450 ml) and 10% aqueous Na_2CO_3 (150 ml). The phases were separated, and the organic phase washed with 10% aqueous Na_2CO_3 (150 ml), water (2x150 ml), and dried ($MgSO_4$). The solvent was concentrated *in vacuo*. The residue was crystallised from a mixture of dichloromethane (30 ml) and n-heptane (30 ml). The precipitate was dried in a vacuum drying oven for 36 h to give the title compound (3.46 g, 51 %).

Example 4

Synthesis of Lit-Glu(ONSu)-OBu^t.

A suspension of H-Glu(OH)-OBu^t (1.28 g, 6.33 mmol), DMF (88 ml) and EDPA (0.82 g, 6.33 mmol) and lithocholic acid 2,5-dioxopyrrolidin-1-yl ester, prepared as described in example 3, was stirred for 16 h at room temperature. The reaction mixture was concentrated *in vacuo* and the residue dissolved in ethyl acetate (40 ml). The resulting solution was washed with 5% aqueous citric acid (2x25 ml), brine (10 ml), and filtered). The solvent was concentrated *in vacuo* and the residue dissolved in DMF (12 ml). The resulting solution was added drop wise to a 10% aqueous solution of citric acid whereby the product precipitates. The precipitate was collected and washed with iced water, and dried *in vacuo*. The crude product was recrystallised from a mixture of n-heptane (40 ml) and 2-propanol (17 ml). The precipitate was dried in a vacuum drying oven for 4 h to give the free acid intermediate.
To a solution of the free acid intermediate in DMF (18 ml) was added hydroxysuccinimide (0.45 g, 3.91 mmol), followed by a solution of DCC (0.73 g, 3.56 mmol) in dichloromethane (18 ml). The resulting mixture was stirred at ambient temperature for 18 h, and then filtered. The filtrate was concentrated *in vacuo* to a solid, and the residue was dissolved in dichloromethane (25 ml), and the filtration repeated, the solvent removed *in vacuo* to give a foam. The residue was dissolved in refluxing n-heptane (35 ml), and the product crystallised b addition of 2-propanol. The precipitate was collected, washed with cold n-heptane, dried at 35°C *in vacuo* to give the title compound (1.34 g, 57%).

Example 5

Synthesis of Arg^{34},Lys^{26} (N$^{\varepsilon}$-(γ-glutamyl(N$^{\alpha}$-lithochoyl))) GLP-1 (7-37)-OH.

To a mixture of Arg^{34},Lys^{26} GLP-1 (7-37)-OH (41.1 mg, 12.2 μmol), EDPA (44 mg, 340 μmol), NMP (5.76 ml) and water (2.88 ml) was added a solution of Lit-Glu(ONSu)-OBu^t (24 mg, 37 μmol), prepared as described in example 4, in NMP (600 μl). The reaction mixture was gently shaken for 5 min. at room temperature, and then allowed to stand for an additional 75 min. at room temperature. The reaction was quenched by the addition of a solution of glycine (20 mg, 268 μmol) in water (2 ml). A 0.5 % aqueous solution of ammonium acetate (128 ml) was added, and the resulting mixture divided into two equal portions, and each portion eluted onto a Varian 5g C8 Mega Bond Elut®, the immobilised compound washed with 5% aqueous acetonitril (2x25 ml), and finally liberated from the cartridge by elution with TFA (2x25 ml). The combined eluates were concentrated *in vacuo*, and the residue purified

by column chromato-graphy using a cyanopropyl column (Zorbax 300SB-CN) and a standard acetonitril/TFA system. The column was heated to 65°C and the acetonitril gradient was 0-100% in 60 minutes. The title compound (5 mg, 11 %) was isolated, and the product was analysed by PDMS. The m/z value for the protonated molecular ion was found to be 3872 +- 3. The resulting molecular weight is thus 3871 +- 3 amu (theoretical value 3871 amu).

Example 6

Synthesis of Arg^{26},Lys^{34} (N^{ε}-(γ-glutamyl(N^{α}-hexadecanoyl))) GLP-1 (7-37)-OH

To a mixture of Arg^{26},Lys^{34} GLP-1 (7-37)-OH (18 mg, 5.3 μmol), EDPA (19.3 mg, 149 μmol), NMP (2.52 ml) and water (1.26 ml) was added a solution of Pal-Glu(ONSu)-OBu^t (8.6 mg, 16 μmol) in NMP (215 μl). The reaction mixture was gently shaken for 5 min. at room temperature, and then allowed to stand for an additional 90 min. at room temperature. The reaction was quenched by the addition of a solution of glycine (8.8 mg, 117 μmol) in water (0.88 ml). A 0.5 % aqueous solution of ammonium acetate (50 ml) was added, and the resulting mixture eluted onto a Varian 5g C8 Mega Bond Elut®, the immobilised compound washed with 5% aqueous acetonitril (25 ml), and finally liberated from the cartridge by elution with TFA (25 ml). The eluate was concentrated *in vacuo*, and the residue purified by column chromatography using a cyanopropyl column (Zorbax 300SB-CN) and a standard acetonitril/TFA system. The column was heated to 65°C and the acetonitril gradient was 0-100% in 60 minutes. The title compound (6 mg, 30 %) was isolated, and the product was analysed by PDMS. The m/z value for the protonated molecular ion was found to be 3752 +- 3. The resulting molecular weight is thus 3751 +- 3 amu (theoretical value 3751 amu).

Example 7

Synthesis of Gly^{8},$Arg^{26,34}$,Lys^{38} (N^{ε}-(γ-glutamyl(N^{α}-hexadecanoyl))) GLP-1 (7-38)-OH.

To a mixture of Gly^{8},$Arg^{26,34}$,Lys^{38} GLP-1 (7-38)-OH (11.8 mg, 3.4 μmol), EDPA (12.1 mg, 94 μmol), NMP (1.65 ml) and water (0.83 ml) was added a solution of Pal-Glu(ONSu)-OBu^t (5.4 mg, 10 μmol) in NMP (135 μl). The reaction mixture was gently shaken for 5 min. at room temperature, and then allowed to stand for an additional 75 min. at room temperature. The reaction was quenched by the addition of a solution of glycine (5.5 mg, 73.7 μmol) in water (553 μl). A 0.5 % aqueous solution of ammonium acetate (36 ml) was added, and the resulting mixture eluted onto a Varian 5g C8 Mega Bond Elut®, the immobilised compound washed with 5% aqueous acetonitril (25 ml), and finally liberated from the

cartridge by elution with TFA (25 ml). The eluate was concentrated *in vacuo*, and the residue purified by column chromatography using a cyanopropyl column (Zorbax 300SB-CN) and a standard acetonitril/TFA system. The column was heated to 65°C and the acetonitril gradient was 0-100% in 60 minutes. The title compound (5 mg, 38 %) was isolated, and the product was analysed by PDMS. The m/z value for the protonated molecular ion was found to be 3895 +- 3. The resulting molecular weight is thus 3894 +- 3 amu (theoretical value 3894 amu).

Example 8

Synthesis of $Gly^{8},Glu^{37},Arg^{26,34},Lys^{38}$ (N^{ε}-(γ-glutamyl(N^{α}-hexadecanoyl))) GLP-1 (7-38)-OH.

To a mixture of $Gly^{8},Glu^{37},Arg^{26,34},Lys^{38}$ GLP-1 (7-38)-OH (9 mg, 2.48 μmol), EDPA (9 mg, 69.4 μmol), NMP (1.25 ml) and water (0.63 ml) was added a solution of Pal-Glu(ONSu)-OBu^{t} (4 mg, 7.4 μmol) in NMP (100 μl). The reaction mixture was gently shaken for 5 min. at room temperature, and then allowed to stand for an additional 105 min. at room temperature. The reaction was quenched by the addition of a solution of glycine (4.1 mg, 54.6 μmol) in water (410 μl). A 0.5 % aqueous solution of ammonium acetate (27 ml) was added, and the resulting mixture eluted onto a Varian 5g C8 Mega Bond Elut®, the immobilised compound washed with 5% aqueous acetonitril (15 ml), and finally liberated from the cartridge by elution with TFA (15 ml). The eluate was concentrated *in vacuo*, and the residue purified by column chromatography using a cyanopropyl column (Zorbax 300SB-CN) and a standard acetonitril/TFA system. The column was heated to 65°C and the acetonitril gradient was 0-100% in 60 minutes. The title compound (2.9 mg, 29 %) was isolated, and the product was analysed by PDMS. The m/z value for the protonated molecular ion was found to be 3967 +- 3. The resulting molecular weight is thus 3966 +- 3 amu (theoretical value 3967 amu).

Example 9

Synthesis of $Gly^{8},Glu^{37},Arg^{26,34},Lys^{38}$ (N^{ε}-(γ-glutamyl(N^{α}-octadecanoyl))) GLP-1 (7-38)-OH.

To a mixture of $Gly^{8},Glu^{37},Arg^{26,34},Lys^{38}$ GLP-1 (7-38)-OH (9 mg, 2.5 μmol), EDPA (9 mg, 69.4 μmol), NMP (1.25 ml) and water (0.63 ml) was added a solution of Ste-Glu(ONSu)-OBu^{t} (4.2 mg, 7.4 μmol in NMP (105 μl). The reaction mixture was gently shaken for 5 min. at room temperature, and then allowed to stand for an additional 105 min. at room temperature. The reaction was quenched by the addition of a solution of glycine (4.1 mg, 54.6 μmol) in water (409 μl). A 0.5 % aqueous solution of ammonium acetate (27 ml) was added, and

the resulting mixture eluted onto a Varian 5g C8 Mega Bond Elut®, the immobilised compound washed with 5% aqueous acetonitril (15 ml), and finally liberated from the cartridge by elution with TFA (15 ml). The eluate was concentrated *in vacuo*, and the residue purified by column chromatography using a cyanopropyl column (Zorbax 300SB-CN) and a standard acetonitril/TFA system. The column was heated to 65°C and the acetonitril gradient was 0-100% in 60 minutes. The title compound (3.2 mg, 32 %) was isolated, and the product was analysed by PDMS. The m/z value for the protonated molecular ion was found to be 3995 +-3. The resulting molecular weight is thus 3994 +- 3 amu (theoretical value 3995 amu).

Example 10

Synthesis of Cap-Glu(ONSu)-OBu^t.

To a solution of octanoic acid (5 g, 34.7 mmol) and N-hydroxysuccinimide (4 g, 34.7 mmol) in anhydrous acetonitril (10 ml) was added a solution of DCC (7.15 g, 34.7 mmol) in anhydrous dichloromethane (15 ml), and the resulting reaction mixture stirred for 16 h at room temperature. The precipitated solid was filtered off and recrystallised from a mixture of n-heptane (40 ml) and 2-propanol (2 ml). The precipitate was dried in a vacuum drying oven for 16 h to give the intermediate Cap-ONSu. A suspension of the crude ester intermediate (3.9 g, 16.2 mmol), (L)-H-Glu(OH)-OBu^t (3.28 g, 16.2 mmol), DMF (268 ml) and EDPA (2.1 g, 16.2 mmol) was stirred for 64 h at room temperature. The reaction mixture was concentrated *in vacuo* and the residue dissolved in ethyl acetate (50 ml). The resulting solution was washed with 5% aqueous citric acid (2x25 ml). The solvent was concentrated *in vacuo* and the residue dissolved in DMF (36 ml). The resulting solution was added drop wise to a 10% aqueous solution of citric acid (357 ml) and extracted with ethyl acetate (200 ml), and dried ($MgSO_4$). The solvent was concentrated *in vacuo* to give the crude glutamic acid intermediate. To a mixture of the crude glutamic acid intermediate, N-hydroxysuccinimide (1.85 g, 16.1 mmol) and DMF (25 ml) was added a solution of DCC (3.32 g, 16.1 mmol) in dichloromethane (15 ml). The resulting mixture was stirred at ambient temperature for 20 h. The reaction mixture was filtered and the solvent concentrated *in vacuo*. The residue was purified on a silica gel column (40- 63μ), eluted with a mixture of dichloromethane and acetonitril (1:1) to give the title compound (0.63 g, 6% over all).

Example 11

Synthesis of Glu^{37},$Arg^{26,34}$,Lys^{38} (N^{ε}-(γ-glutamyl(N^{α}-hexadecanoyl))) GLP-1 (7-38)-OH.

To a mixture of Glu^{37},$Arg^{26,34}$,Lys^{38} GLP-1 (7-38)-OH (17.6 mg, 4.9 μmol), EDPA (17.6 mg, 136 μmol), NMP (1.23 ml) and water (2.46 ml) was added a solution of Pal-Glu(ONSu)-OBu^t (7.9 mg, 14.6 μmol) in NMP (197 μl). The reaction mixture was gently shaken for 5 min. at room temperature, and then allowed to stand for an additional 2 h at room temperature. The reaction was quenched by the addition of a solution of glycine (8 mg, 107 μmol) in water (804 μl). A 0.5 % aqueous solution of ammonium acetate (49 ml) was added, and the resulting mixture eluted onto a Varian 5g C8 Mega Bond Elut®, the immobilised compound washed with 5% aqueous acetonitril (25 ml), and finally liberated from the cartridge by elution with TFA (25 ml). The eluate was concentrated *in vacuo*, and the residue purified by column chromatography using a cyanopropyl column (Zorbax 300SB-CN) and a standard acetonitril/TFA system. The column was heated to 65°C and the acetonitril gradient was 0-100% in 60 minutes. The title compound (5.1 mg, 26 %) was isolated, and the product was analysed by PDMS. The m/z value for the protonated molecular ion was found to be 3981 +- 3. The resulting molecular weight is thus 3980 +- 3 amu (theoretical value 3981 amu).

Example 12

Synthesis of Arg^{34},Lys^{26} (N^{ε}-(γ-glutamyl(N^{α}-octadecanoyl))) GLP-1 (7-37)-OH.

To a mixture of Arg^{34} GLP-1 (7-37)-OH (41.1 mg, 12.2 μmol), EDPA (44 mg, 341 μmol), NMP (5.76 ml) and water (2.88 ml) was added a solution of Ste-Glu(ONSu)-OBu^t (20.7 mg, 36.5 μmol in NMP (517 μl). The reaction mixture was gently shaken for 5 min. at room temperature, and then allowed to stand for an additional 2 h at room temperature. The reaction was quenched by the addition of a solution of glycine (20.1 mg, 268 μmol) in water (2.01 ml). A 0.5 % aqueous solution of ammonium-acetate (120 ml) was added, and the resulting mixture eluted onto a Varian 5g C8 Mega Bond Elut®, the immobilised compound washed with 5% aqueous acetonitril (25 ml), and finally liberated from the cartridge by elution with TFA (25 ml). The eluate was concentrated *in vacuo*, and the residue purified by column chromatography using a cyanopropyl column (Zorbax 300SB-CN) and a standard acetonitril/TFA system. The column was heated to 65°C and the acetonitril gradient was 0-100% in 60 minutes. The title compound (15.4 mg, 34 %) was isolated, and the product was analysed by PDMS. The m/z value for the protonated molecular ion was found to be 3781 +- 3. The resulting molecular weight is thus 3780 +- 3 amu (theoretical value 3779 amu).

Example 13

Synthesis of Arg^{34},Lys^{26}(N^{ε}-decanoyl) GLP-1 (7-37)

To a mixture of Arg^{34}-GLP-1 (7-37)-OH (20 mg, 5.9 μmol), EDPA (21.4 mg, 165 μmol), NMP (2.8 ml) and water (1.4 ml) was added a solution of Cac-ONSu (4.8 mg, 17.7 μmol) in NMP (119 μl). The reaction mixture was gently shaken for 5 min., and then allowed to stand for an additional 2h at room temperature. The reaction was quenched by the addition of a solution of glycine (9.8 mg, 130 μmol) in water (98 μl). The resulting mixture was purified by column chromatography using a cyanopropyl column (Zorbax 300SB-CN) and a standard acetonitril/TFA system. The column was heated to 65°C and the acetonitril gradient was 0-100% in 60 minutes. The title compound (7.4 mg, 35%) was isolated, and the product was analysed by PDMS. The m/z value for the protonated molecular ion was found to be 3539.6 ± 3. The resulting molecular weight is thus 3538.6 ± 3 amu (theoretical value 3538 amu).

Example 14

Synthesis of Arg^{34},Lys^{26} (N^{ε}-(hexadecanoyl)) GLP-1 (7-37)-OH.

To a mixture of Arg^{34} GLP-1 (7-37)-OH (41.1 mg, 12.2 μmol), EDPA (44 mg, 340 μmol), NMP (2.88 ml) and water (2.88 ml) was added a solution of Pal-ONSu (12.9 mg, 36.5 μmol) in NMP (3.3 ml). The reaction mixture was gently shaken for 5 min. at room temperature, and then allowed to stand for an additional 110 min. at room temperature. The reaction was quenched by the addition of a solution of glycine (20.1 mg, 268 μmol) in water (201 μl). The solvent was concentrated *in vacuo*, and the residue purified by column chromatography using a cyanopropyl column (Zorbax 300SB-CN) and a standard acetonitril/TFA system. The column was heated to 65°C and the acetonitril gradient was 0-100% in 60 minutes. The title compound (15 mg, 34 %) was isolated, and the product was analysed by PDMS.

Example 15

Synthesis of $Arg^{26,34}$,Lys^{27} (N^{ε}-(γ-glutamyl(N^{α}-hexadecanoyl))) GLP-1 (7-37)-OH

To a mixture of $Arg^{26,34}$, Lys^{27} GLP-1 (7-37)-OH (11.6 mg, 3.4 μmol), EDPA (12.3 mg, 94.9 μmol), NMP (1.6 ml) and water (0.8 ml) was added a solution of Pal-Glu(ONSu)-OBu^t (5.5 mg, 10.2 μmol) in NMP (137 μl). The reaction mixture was gently shaken for 5 min. at room temperature, and then allowed to stand for an additional 90 min. at room temperature. The reaction was quenched by the addition of a solution of glycine (5.6 mg, 74.6 μmol) in water (560 μl). A 0.5 % aqueous solution of ammonium acetate (34 ml) was added, and the resulting mixture eluted onto a Varian 5g C8 Mega Bond Elut®, the immobilised compound

washed with 5% aqueous acetonitril (15 ml), and finally liberated from the cartridge by elution with TFA (25 ml). The solvent was concentrated *in vacuo*, and the residue purified by column chromatography using a cyanopropyl column (Zorbax 300SB-CN) and a standard acetonitril/TFA system. The column was heated to 65°C and the acetonitril gradient was 0-100% in 60 minutes. The title compound (2.1 mg, 16 %) was isolated, and the product was analysed by PDMS.

Example 16

Synthesis of $Arg^{26,34}$,Lys^{23} (N^{ε}-(γ-glutamyl(N^{α}-hexadecanoyl))) GLP-1 (7-37)-OH.

To a mixture of $Arg^{26,34}$, Lys^{23} GLP-1 (7-37)-OH (11.6 mg, 3.4 μmol), EDPA (12.3 mg, 94.9 μmol), NMP (1.6 ml) and water (0.8 ml) was added a solution of Pal-Glu(ONSu)-OBu^t (5.5 mg, 10.2 μmol) in NMP (137 μl). The reaction mixture was gently shaken for 5 min. at room temperature, and then allowed to stand for an additional 90 min. at room temperature. The reaction was quenched by the addition of a solution of glycine (5.6 mg, 74.6 μmol) in water (560 μl). A 0.5 % aqueous solution of ammonium acetate (34 ml) was added, and the resulting mixture eluted onto a Varian 5g C8 Mega Bond Elut®, the immobilised compound washed with 5% aqueous acetonitril (15 ml), and finally liberated from the cartridge by elution with TFA (25 ml). The solvent was concentrated *in vacuo*, and the residue purified by column chromatography using a cyanopropyl column (Zorbax 300SB-CN) and a standard acetonitril/TFA system. The column was heated to 65°C and the acetonitril gradient was 0-100% in 60 minutes. The title compound (3.1 mg, 24 %) was isolated, and the product was analysed by PDMS.

Example 17

Synthesis of $Arg^{26,34}$,Lys^{18} (N^{ε}-(γ-glutamyl(N^{α}-hexadecanoyl))) GLP-1 (7-37)-OH

To a mixture of $Arg^{26,34}$, Lys^{18} GLP-1 (7-37)-OH (11.7 mg, 3.4 μmol), EDPA (12.2 mg, 94.6 μmol), NMP (1.6 ml) and water (0.8 ml) was added a solution of Pal-Glu(ONSu)-OBu^t (5.5 mg, 10.2 μmol) in NMP (137 μl). The reaction mixture was gently shaken for 5 min. at room temperature, and then allowed to stand for an additional 90 min. at room temperature. The reaction was quenched by the addition of a solution of glycine (5.6 mg, 74.6 μmol) in water (560 μl). A 0.5 % aqueous solution of ammonium acetate (34 ml) was added, and the resulting mixture eluted onto a Varian 5g C8 Mega Bond Elut®, the immobilised compound washed with 5% aqueous acetonitril (25 ml), and finally liberated from the cartridge by elution with TFA (25 ml). The solvent was concentrated *in vacuo*, and the residue purified by co-

lumn chromatography using a cyanopropyl column (Zorbax 300SB-CN) and a standard acetonitril/TFA system. The column was heated to 65°C and the acetonitril gradient was 0-100% in 60 minutes. The title compound (1.9 mg, 15 %) was isolated, and the product was analysed by PDMS.

Example 18

Synthesis of Arg^{34},Lys^{26} (N^{ε}-(octanoyl)) GLP-1 (7-37)-OH.

To a mixture of Arg^{34} GLP-1 (7-37)-OH (41.1 mg, 12.2 μmol), EDPA (44 mg, 341 μmol), NMP (5.76 ml) and water (2.88 ml) was added a solution of Cap-ONSu (8.8 mg, 36.5 μmol, prepared as described in example 10, in NMP (106 μl). The reaction mixture was gently shaken for 5 min. at room temperature, and then allowed to stand for an additional 115 min. at room temperature. The reaction was quenched by the addition of a solution of glycine (20 mg, 268 μmol) in water (200 μl). The solvent was concentrated *in vacuo*, and the residue purified by column chromatography using a cyanopropyl column (Zorbax 300SB-CN) and a standard acetonitril/TFA system. The column was heated to 65°C and the acetonitril gradient was 0-100% in 60 minutes. The title compound (18.8 mg, 44 %) was isolated, and the product was analysed by PDMS.

Example 19

Synthesis of Arg^{34},Lys^{26} (N^{ε}-(dodecanoyl)) GLP-1 (7-37)-OH.

To a mixture of Arg^{34} GLP-1 (7-37)-OH (41.1 mg, 12.2 μmol), EDPA (44 mg, 341 μmol), NMP (5.76 ml) and water (2.88 ml) was added a solution of Lau-ONSu (8.8 mg, 36.5 μmol, prepared in a similar manner as described for Cap-ONSu in example 10), in NMP (271 μl). The reaction mixture was gently shaken for 5 min. at room temperature, and then allowed to stand for an additional 100 min. at room temperature. The reaction was quenched by the addition of a solution of glycine (20.1 mg, 268 μmol) in water (200 μl). The solvent was concentrated *in vacuo*, and the residue purified by column chromatography using a cyanopropyl column (Zorbax 300SB-CN) and a standard acetonitril/TFA system. The column was heated to 65°C and the acetonitril gradient was 0-100% in 60 minutes. The title compound (18 mg, 42 %) was isolated, and the product was analysed by PDMS.

Example 20

Synthesis of Pal-GABA-ONSu.

A mixture of Pal-ONSu (3 g, 8.48 mmol), γ-aminobutyric acid (0.87 g, 8.48 mmol) in DMF (200 ml) was stirred at room temperature for 60 h. The reaction mixture was filtered and the filtrate was added drop wise to 10% aqueous citric acid (500 ml). The precipitated N-acylated intermediate was collected and dried *in vacuo*. To a suspension of the dried intermediate in DMF (35 ml) was added a solution of DCC (1.45 g, 7.0 mmol) in dichloromethane (20 ml). The resulting mixture was stirred at room temperature for 20 h, and then filtered. The solvent was removed *in vacuo* to give a solid residue. The residue was recrystallised from a mixture of n-heptane (50 ml) and 2-propanol (2.5 ml) to give the title compound (2.5 g, 75 %).

Example 21

Synthesis of Arg^{34},Lys^{26} (N^{ε}-(γ-aminobutyroyl(N^{γ}-hexadecanoyl))) GLP-1 (7-37)-OH.

To a mixture of Arg^{34}, Lys^{26} GLP-1 (7-37)-OH (41.1 mg, 12.2 μmol), EDPA (44 mg, 341 μmol), NMP (5.76 ml) and water (2.88 ml) was added a solution of Pal-GABA-ONSu (16 mg, 36.5 μmol, prepared as described in example 20) in NMP (400 μl). The reaction mixture was gently shaken for 5 min. at room temperature, and then allowed to stand for an additional 100 min. at room temperature. The reaction was quenched by the addition of a solution of glycine (20 mg, 268 μmol) in water (200 μl). The solvent was concentrated *in vacuo*, and the residue purified by column chromatography using a cyanopropyl column (Zorbax 300SB-CN) and a standard acetonitril/TFA system. The column was heated to 65°C and the acetonitril gradient was 0-100% in 60 minutes. The title compound (15.8 mg, 35 %) was isolated, and the product was analysed by PDMS.

Example 22

Synthesis of N^{α}-hexadecanoyl-D-glutamic acid α-t-butyl ester-γ-2,5-dioxopyrrolidin-1-yl ester.

A mixture of Pal-ONSu (6.64 g, 18.8 mmol), D-glutamic acid α-tert-butyl ester (4.5 g, 18.8 mmol) and EDPA (4.85 g, 37.5 mmol) in DMF (538 ml) was stirred at room temperature for 60 h. The solvent was removed and the residue dissolved in ethyl acetate (175 ml). The resulting solution was extracted with 10% aqueous citric acid (2x125 ml), and the organic phase concentrated *in vacuo*. The residue was dissolved in DMF (60 ml), and the resulting mixture slowly added to 10% aqueous citric acid (500 ml). The precipitated compound was collected and dried *in vacuo*, to give the crude N-acylated glutamic acid intermediate. The crude intermediate was dissolved in DMF (35 ml), and a solution of DCC (3.5 g, 17 mmol) in dichloromethane (70 ml) was added. The resulting mixture was stirred at room

temperature for 20 h, and then filtered. The filtrate was concentrated *in vacuo*, and the solid residue recrystallised from a mixture of n-heptane (75 ml) and 2-propanol (5 ml), to give the title compound (5.2 g, 50 %)

Example 23

Synthesis of Arg^{34},Lys^{26} (N^{ε}-(γ-D-glutamyl(N^{α}-hexadecanoyl))) GLP-1 (7-37)-OH.

To a mixture of Arg^{34}, Lys^{26} GLP-1 (7-37)-OH (41.1 mg, 12.2 μmol), EDPA (44 mg, 341 μmol), NMP (5.76 ml) and water (2.88 ml) was added a solution of N^{α}-hexadecanoyl-D-glutamic acid α-t-butyl ester-γ-2,5-dioxopyrrolidin-1-yl ester (19.7 mg, 36.5 μmol) in NMP (491 μl). The reaction mixture was gently shaken for 5 min. at room temperature, and then allowed to stand for an additional 95 min. at room temperature. The reaction was quenched by the addition of a solution of glycine (20 mg, 268 μmol) in water (2 ml). A 0.5 % aqueous solution of ammonium acetate (120 ml) was added, and the resulting mixture divided into to equal portions, and each portion eluted onto a Varian 5g C8 Mega Bond Elut®, the immobilised compound washed with 5% aqueous acetonitril (25 ml), and finally liberated from the cartridge by elution with TFA (25 ml). The combined eluates were concentrated *in vacuo*, and the residue purified by column chromatography using a cyanopropyl column (Zorbax 300SB-CN) and a standard acetonitril/TFA system. The column was heated to 65°C and the acetonitril gradient was 0-100% in 60 minutes. The title compound (10.5 mg, 23 %) was isolated, and the product was analysed by PDMS.

Example 24

Synthesis of Lys^{34} (N^{ε}-(γ-glutamyl(N^{α}-tetradecanoyl))) GLP-1 (7-37).

To a mixture of GLP-1 (7-37)-OH (33.6 mg, 8.9 μmol), EDPA (32.4 mg, 250 μmol), NMP (2.1 ml) and water (2.1 ml) was added a solution of Myr-Glu(ONSu)-OBu^t (9.1 mg, 17.9 μmol), prepared as described in PCT application no. PCT/DK97/00340, in NMP (228 μl). The reaction mixture was gently shaken for 5 min., and then allowed to stand for an additional 80 min. at room temperature. The reaction was quenched by the addition of a solution of glycine (14.8 mg, 197 μmol) in water (1.47 ml). A 0.5% aqueous solution of ammonium acetate (100 ml) was added, and the resulting mixture divided into two equal portions, and each portion eluted onto a Varian 5g C8 Mega Bond Elut®, the immobilised compound washed with 5% aqueous acetonitril (2x25 ml), and finally liberated from the cartridge by elution with TFA (2x25 ml). The combined eluates were concentrated *in vacuo*, and the residue purified by column chromatography using a cyanopropyl column (Zorbax 300SB-CN) and a standard

acetonitril/TFA system. The column was heated to 65°C and the acetonitril gradient was 0-100% in 60 minutes. The title compound (0.19 mg, 0.6%) was isolated, and the product was analysed by PDMS. The m/z value for the protonated molecular ion was found to be 3693 ± 3. The resulting molecular weight is thus 3692 ± 3 amu (theoretical value 3695 amu).

Example 25

Synthesis of $Arg^{26,34}$,Lys^{8}(N^{ε}-(γ-glutamyl(N^{α}-hexadecanoyl))) GLP-1 (7-37).

To a mixture of $Arg^{26,34}$, Lys^{8}-GLP-1 (7-37)-OH (10.3 mg, 3 μmol), EDPA (10.8 mg, 83 μmol), NMP (1.44 ml) and water (0.72 ml) was added a solution of Pal-Glu(ONSu)-OBu^{t} (4.8 mg, 8.9 μmol), prepared as described in PCT application no. PCT/DK97/00340, in NMP (120 μl). The reaction mixture was gently shaken for 5 min., and then allowed to stand for an additional 70 min. at room temperature. The reaction was quenched by the addition of a solution of glycine (4.9 mg, 65.3 μmol) in water (490 μl). A 0.5% aqueous solution of ammonium acetate (30 ml) was added, and the resulting mixture eluted onto a Varian 5g C8 Mega Bond Elut®, the immobilised compound washed with 5% aqueous acetonitril (25 ml), and finally liberated from the cartridge by elution with TFA (25 ml). The eluate was concentrated *in vacuo*, and the residue purified by column chromatography using a cyanopropyl column (Zorbax 300SB-CN) and a standard acetonitril/TFA system. The column was heated to 65°C and the acetonitril gradient was 0-100% in 60 minutes. The title compound (3.2 mg, 28%) was isolated, and the product was analysed by PDMS. The m/z value for the protonated molecular ion was found to be 3836 ± 3. The resulting molecular weight is thus 3835 ± 3 AMU (theoretical value 3836 AMU).

Example 26

Synthesis of Lau-Glu(ONSu)-OBu^{t}.

To a solution of H-Glu-OBu^{t} (3 g, 15 mmol) in DMF (344 ml) was added EDPA (2.58 ml, 15 mmol) and a solution of Lau-ONSu (4.5 g, 15 mmol), prepared in a similar manner as described for Cap-ONSu in example 10, in DMF (74 ml). The resulting mixture was stirred at ambient temperature for 18 h, and the solvent removed *in vacuo*. The oily residue was partitioned between ethyl acetate (150 ml) and 5% aqueous citric acid (250 ml). The organic phase was concentrated *in vacuo*. The residue was dissolved in DMF (40 ml) and the solution added drop by drop to a 10% aqueous citric acid solution (350 ml). The precipitated product was collected, washed with water and dried *in vacuo* for 18 h to give the intermediate free acid. To solution of the free acid intermediate in DMF (25 ml) was added N-

hydroxysuccinimide (1.7 g, 14.8 mmol) and a solution of N-(3-dimethylaminopropyl)-N'-ethylcarbodiimide (2.58 g, 13.5 mmol) in dichloromethane (52 ml). The resulting mixture was stirred at room temperature for 18 h, and the solvents removed *in vacuo*. The oily residue was partitioned between dichloromethane (80 ml) and water (80 ml). The organic phase was washed with 5% aqueous citric acid, dried ($MgSO_4$), and concentrated *in vacuo* to a solid. The solid residue was crystallised from a mixture of n-heptane (77 ml) and 2-propanol (50 ml), and finally recrystallised from n-heptane (76 ml) to give the title compound (2.96 g, 46%).

Example 27

Synthesis of Arg^{34},Lys^{26}(N^{ε}-(γ-glutamyl(N^{α}-dodecanoyl))) GLP-1 (7-37).

To a mixture of Arg^{34}-GLP-1 (7-37)-OH (20.6 mg, 6.1 μmol), EDPA (22 mg, 171 μmol), NMP (2.88 ml) and water (1.44 ml) was added a solution Lau-Glu(ONSu)-OBu^t (10.2 mg, 21.2 μmol), prepared as described in example 26, in NMP (255 μl). The reaction mixture was gently shaken for 5 min., and then allowed to stand for an additional 75 min. at room temperature. The reaction was quenched by the addition of a solution of glycine (10 mg, 134 μmol) in water (100 μl). A 0.5% aqueous solution of ammonium acetate (61 ml) was added, and the resulting mixture eluted onto a Varian 5g C8 Mega Bond Elut®, the immobilised compound washed with 5% aqueous acetonitril (25 ml), and finally liberated from the cartridge by elution with TFA (25 ml). The eluate was concentrated *in vacuo*, and the residue purified by column chromatography using a cyanopropyl column (Zorbax 300SB-CN) and a standard acetonitril/TFA system. The column was heated to 65°C and the acetonitril gradient was 0-100% in 60 minutes. The title compound (8.2 mg, 36%) was isolated, and the product was analysed by PDMS. The m/z value for the protonated molecular ion was found to be 3693 ± 3. The resulting molecular weight is 3692 ± 3 AMU (theoretical value 3693 AMU).

Example 28

Synthesis of Lau-β-Ala-ONSu.

To a solution of Lau-ONSu (4.25 g, 14.3 mmol), prepared in a similar manner to in DMF (400 ml) was added EDPA (1.84 g, 14.3 mmol) and β-alanine (1.27 g, 14.3 mmol). The resulting mixture was stirred at ambient temperature for 18 h. Water (250 ml) and DMF (50 ml) were added and the solution stirred for 1 h at room temperature. The solvents were removed *in vacuo* to give a solid. The solid residue was dissolved in DMF (50 ml) and the solution ad-

ded drop by drop to a 5% aqueous solution of citric acid (200 ml). The precipitate collected, washed with water (50 ml) and dried *in vacuo* to give the title compound (3.6 g, 93%).

Example 29

Synthesis of Pal-β-Ala-ONSu.

To a solution of Pal-ONSu (4.25 g, 14.3 mmol) in DMF (400 ml) was added EDPA (1.84 g, 14.3 mmol) and β-alanine (1.27 g, 14.3 mmol). The resulting mixture was stirred at ambient temperature for 18 h. Water (250 ml) and DMF (50 ml) were added and the solution stirred for 1 h at room temperature. The solvents were removed *in vacuo* to give a solid. The solid residue was dissolved in DMF (50 ml) and the solution added drop by drop to a 5% aqueous solution of citric acid (200 ml). The precipitate collected, washed with water (50 ml) and dried *in vacuo* to give the title compound (3.6 g, 93%).

Example 30

Synthesis of Myr-GABA-ONSu.

To a solution of Myr-ONSu (4 g, 12.3 mmol) in DMF (350 ml) was added EDPA (1.58 g, 12.3 mmol) and γ-aminobutyric acid (1.26 g, 12.3 mmol). The resulting mixture was stirred at ambient temperature for 18 h. Water (50 ml) was added and the solution stirred for 1 h at room temperature. The solvents were removed *in vacuo* to give a solid. The solid residue was dissolved in DMF (75 ml) and the solution added drop by drop to a 5% aqueous solution of citric acid (250 ml). The precipitate collected, washed with water (100 ml) and dried *in vacuo* to give the free acid intermediate (3.65 g, 95%). To a solution of the free acid intermediate (3 g, 9.6 mmol), N-hydroxysuccinimide (1.65 g, 14.4 mmol) and N-(3-dimethylaminopropyl)-N'-ethylcarbodiimide hydrochloride (3.67 g, 19.1 mmol) in DMF (330 ml) was stirred for 18 h at room temperature, and the solvent removed *in vacuo* to give a solid. The solid residue was dissolved in dichloromethane (100 ml) and washed with brine (100 ml). The organic phase was dried ($MgSO_4$) and concentrated *in vacuo* to give a solid. The solid residue was recrystallised from n-heptane (75 ml) to give the title compound (2.8 g, 71%).

Example 31

Synthesis of Pal-β-Ala-ONSu.

To a solution of Pal-ONSu (0.9 g, 2.8 mmol) in DMF (100 ml) were added N-hydroxysuccinimide (0.35 g, 3 mmol) and N-(3-dimethylaminopropyl)-N'-ethylcarbodiimide (0.79 g, 4.1 mmol). The resulting mixture was stirred at ambient temperature for 40h, and

the solvent removed *in vacuo*. The solid residue was partitioned between water (50 ml) and dichloromethane (50 ml). The organic phase was separated, dried ($MgSO_4$) and the solvent removed *in vacuo* to give the title compound (1.1 g, 94%).

Example 32

Synthesis of Arg^{34},Lys^{26}(N^{ε}-(β-alanyl(N^{α}-hexadecanoyl))) GLP-1 (7-37).

To a mixture of Arg^{34}-GLP-1 (7-37)-OH (19.2 mg, 5.7 μmol), EDPA (20.5 mg, 159 μmol), NMP (2.7 ml) and water (1.35 ml) was added a solution Pal-β-Ala-ONSu (7.2 mg, 17 μmol), prepared as described in example 31, in NMP (181 μl). The reaction mixture was gently shaken for 5 min., and then allowed to stand for an additional 90 min. at room temperature. The reaction was quenched by the addition of a solution of glycine (9.3 mg, 125 μmol) in water (93 μl). The reaction mixture was purified by column chromatography using a cyanopropyl column (Zorbax 300SB-CN) and a standard acetonitril/TFA system. The column was heated to 65°C and the acetonitril gradient was 0-100% in 60 minutes. The title compound (11.6 mg, 55%) was isolated, and the product was analysed by PDMS. The m/z value for the protonated molecular ion was found to be 3694 ± 3. The resulting molecular weight is thus 3693 ± 3 AMU (theoretical value 3693 AMU).

Example 33

Synthesis of Pal-Glu(OBu^t)-ONSu.

To a solution of H-Glu(OH)-OBu^t (2.7 g, 11.3 mmol) and Pal-ONSu (3.98 g, 11.3 mmol) in DMF (300 ml) was added EDPA (3.2 g, 24.8 mmol). The resulting mixture was stirred at ambient temperature for 18h, and the solvent concentrated *in vacuo* to give an oil. The oily residue was dissolved in DMF (60 ml) and the solution added drop by drop to a 10% aqueous solution of citric acid (300 ml) whereby a precipitate was formed. The precipitate was collected, washed with cold water (25 ml), and dried *in vacuo* to give free acid intermediate (4.44 g, 89%). The free acid intermediate (4 g, 9.1 mmol) was dissolved in DMF (50 ml) and N-hydroxysuccinimide (1.15 g, 10 mmol) and N-(3-dimethylaminopropyl)-N'-ethylcarbodiimide hydrochloride (2.6 g, 13.6 mmol) were added. The resulting mixture was stirred at room temperature for 60h, the solvent concentrated *in vacuo* to give the crude title compound (8.2 g)

Example 34

Synthesis of Arg^{34},Lys^{26}(N^{ε}-(α-glutamyl(N^{α}-hexadecanoyl))) GLP-1 (7-37).

To a mixture of Arg^{34}-GLP-1 (7-37)-OH (25.6 mg, 7.6 μmol), EDPA (27.4 mg, 212 μmol), NMP (3.5 ml) and water (1.75 ml) was added a solution of Pal-Glu(OBu^t)-ONSu (12.2 mg, 22.7 μmol), prepared as described in example 33, in NMP (305 μl). The reaction mixture was gently shaken for 5 min., and then allowed to stand for an additional 100 min. at room temperature. The reaction was quenched by the addition of a solution of glycine (12.5 mg, 168 μmol) in water (125 μl). A 0.5% aqueous solution of ammonium acetate (72.5 ml) was added, and the resulting mixture eluted onto a Varian 5g C8 Mega Bond Elut®, the immobilised compound washed with 5% aqueous acetonitril (25 ml), and finally liberated from the cartridge by elution with TFA (30 ml). The eluate was concentrated *in vacuo*, and the residue purified by column chromatography using a cyanopropyl column (Zorbax 300SB-CN) and a standard acetonitril/TFA system. The column was heated to 65°C and the acetonitril gradient was 0-100% in 60 minutes. The title compound (6.1 mg, 22%) was isolated, and the product was analysed by PDMS. The m/z value for the protonated molecular ion was found to be 3751 ± 3. The resulting molecular weight is thus 3750 ± 3 AMU (theoretical value 3751 AMU).

Example 35

Synthesis of Ste-GABA-ONSu.

To a solution of Ste-ONSu (3 g, 7.9 mmol) in DMF (270 ml) was added EDPA (1 g, 7.9 mmol) and a solution of γ-aminobutyric acid (0.81 g, 7.9 mmol) in water (40 ml). The resulting suspension was stirred at ambient temperature for 18 h, and then concentrated *in vacuo* to a final volume of 50 ml. The resulting suspension was added to a 5% aqueous solution of citric acid (500 ml) whereby a precipitate is formed. The precipitate was collected and washed with water (50 ml), and dried *in vacuo* for 4h to give the free acid intermediate (2.8 g, 97%). To a mixture of the free acid intermediate (2.6 g, 7 mmol), N-hydroxysuccinimide (1.21 g, 10.5 mmol) and N-(3-dimethylaminopropyl)-N'-ethylcarbodiimide hydrochloride (2.69 g, 14 mmol) in NMP (300 ml) was stirred for 70 h, and the solvent removed *in vacuo* to give a solid. The solid residue was dissolved in dichloromethane (100 ml) and washed with brine (2x100 ml). The organic phase was dried ($MgSO_4$) and concentrated *in vacuo* to give a solid. The solid residue was recrystallised from n-heptane (75 ml) to give the title compound (2.2 g, 67%).

Example 36

Synthesis of Pal-Isonip-ONSu.

To a suspension of 1-hexadecanoylbenzotriazole (3 g, 8.4 mmol), prepared as described in the literature (Kreutzberger; van der Goot, Arch.Pharm., 307, 1974), in DMF (350 ml) were added EDPA (1.08 g, 8.4 mmol) and a solution of piperidine-4-carboxylic acid in water (20 ml). The resulting suspension was stirred at room temperature for 12d, and then concentrated *in vacuo* to an oil. The oily residue was added drop by drop to a 5% aqueous solution of citric acid (300 ml) whereby a precipitate was formed. The precipitate was collected and washed with water (50 ml), dried *in vacuo* for 2 h to give the free acid intermediate (3 g, 97%). To a solution of the free acid intermediate (2.8 g, 7.6 mmol), N-hydroxysuccinimide (1.31 g, 11.4 mmol) in DMF (250 ml) was added N-(3-dimethylaminopropyl)-N'-ethylcarbodiimide hydrochloride (2.92 g, 15.2 mmol). The resulting mixture was stirred at ambient temperature for 18h, and the solvent removed *in vacuo* to give an oil. The oily residue was dissolved in dichloromethane (100 ml), washed with brine (50 ml), dried ($MgSO_4$) and concentrated *in vacuo* to give the crude title compound (4.1 g, quant.).

Example 37

Synthesis of Arg^{34},Lys^{26}(N^{ε}-(piperidinyl-4-carbonyl(N-hexadecanoyl))) GLP-1 (7-37).

To a mixture of Arg^{34}-GLP-1 (7-37)-OH (25 mg, 7.4 μmol), EDPA (26.7 mg, 207 μmol), NMP (3.5 ml) and water (1.75 ml) was added a solution Pal-Isonip-ONSu (13.7 mg, 30 μmol), prepared as described in example 36 in NMP (343 μl). The reaction mixture was gently shaken for 5 min., and then allowed to stand for an additional 90 min. at room temperature. The reaction was quenched by the addition of a solution of glycine (12.2 mg, 163 μmol) in water (122 μl). The reaction mixture was purified by column chromatography using a cyanopropyl column (Zorbax 300SB-CN) and a standard acetonitril/TFA system. The column was heated to 65°C and the acetonitril gradient was 0-100% in 60 minutes. The title compound (12 mg, 44%) was isolated, and the product was analysed by PDMS. The m/z value for the protonated molecular ion was found to be 3734 ± 3. The resulting molecular weight is thus 3733 ± 3 AMU (theoretical value 3733 AMU).

Example 38

Synthesis of Arg^{34},Lys^{26}(N^{ε}-(γ-glutamyl(N^{α}-decanoyl))) GLP-1 (7-37)

To a mixture of Arg^{34}-GLP-1 (7-37)-OH (25 mg, 7.4 μmol), EDPA (26.7 mg, 207 μmol), NMP (3.5 ml) and water (1.75 ml) was added a solution of Cac-Glu(ONSu)-OBu^t (10 mg, 22.1 μmol) in NMP (252 μl). The reaction mixture was gently shaken for 5 min., and then allowed to stand for an additional 140 min. at room temperature. The reaction was quenched by the

addition of a solution of glycine (12.2 mg, 162 μmol) in water (122 μl). A 0.5% aqueous solution of ammonium acetate (73 ml) was added, and the resulting mixture eluted onto a Varian 5g C8 Mega Bond Elut®, the immobilised compound washed with 5% aqueous acetonitril (25 ml), and finally liberated from the cartridge by elution with TFA (25 ml). The eluate was concentrated *in vacuo*, and the residue purified by column chromatography using a cyanopropyl column (Zorbax 300SB-CN) and a standard acetonitril/TFA system. The column was heated to 65°C and the acetonitril gradient was 0-100% in 60 minutes. The title compound (12.2 mg, 45%) was isolated, and the product was analysed by PDMS. The m/z value for the protonated molecular ion was found to be 3669.7 ± 3. The resulting molecular weight is thus 3668.7 ± 3 amu (theoretical value 3667 amu).

BIOLOGICAL FINDINGS

Protraction of GLP-1 derivatives after s.c. administration

The protraction of a number GLP-1 derivatives of the invention was determined by monitoring the concentration thereof in plasma after sc administration to healthy pigs, using the method described below. For comparison also the concentration in plasma of GLP-1(7-37) after sc. administration was followed. The protraction of other GLP-1 derivatives of the invention can be determined in the same way.

Pigs (50% Duroc, 25% Yorkshire, 25% Danish Landrace, app 40 kg) were fasted from the beginning of the experiment. To each pig 0.5 nmol of test compound per kg body weight was administered in a 50 μM isotonic solution (5 mM phosphate, pH 7.4, 0.02% Tween®-20 (Merck), 45 mg/ml mannitol (pyrogen free, Novo Nordisk). Blood samples were drawn from a catheter in vena jugularis at the hours indicated in Table 1. 5 ml of the blood samples were poured into chilled glasses containing 175 μl of the following solution: 0.18 M EDTA, 1500 KIE/ml aprotinin (Novo Nordisk) and 3% bacitracin (Sigma), pH 7.4. Within 30 min, the samples were centrifuged for 10 min at 5-6000*g. Temperature was kept at 4°C. The supernatant was pipetted into different glasses and kept at minus 20°C until use.

The plasma concentrations of the peptides were determined by RIA using a monoclonal antibody specific for the N-terminal region of GLP-1(7-37). The cross reactivities were less than 1% with GLP-1(1-37) and GLP-1(8-36)amide and < 0.1% with GLP-1(9-37), GLP-1(10-36)amide and GLP-1(11-36)amide. The entire procedure was carried out at 4°C.

The assay was carried out as follows: 100 µl plasma was mixed with 271 µl 96% ethanol, mixed using a vortex mixer and centrifuged at 2600*g for 30 min. The supernatant was decanted into Minisorp tubes and evaporated completely (Savant Speedvac AS290). The evaporation residue was reconstituted in the assay buffer consisting of 80 mM NaH_2PO_4/Na_2HPO_4, 0.1 % HSA (Orpha 20/21, Behring), 10 mM EDTA, 0.6 mM thiomersal (Sigma), pH 7.5. Samples were reconstituted in volumes suitable for their expected concentrations, and were allowed to reconstitute for 30 min. To 300 µl sample, 100 µl antibody solution in dilution buffer containing 40 mM NaH_2PO_4/Na_2HPO_4, 0.1 % HSA, 0.6 mM thiomersal, pH 7.5, was added. A non-specific sample was prepared by mixing 300 µl buffer with 100 µl dilution buffer. Individual standards were prepared from freeze dried stocks, dissolved in 300 µl assay buffer. All samples were pre-incubated in Minisorp tubes with antibody as described above for 72 h. 200 µl tracer in dilution buffer containing 6-7000 CPM was added, samples were mixed and incubated for 48 h. 1.5 ml of a suspension of 200 ml per litre of heparin-stabilised bovine plasma and 18 g per litre of activated carbon (Merck) in 40 mM NaH_2PO_4/Na_2HPO_4, 0.6 mM thiomersal, pH 7.5, was added to each tube. Before use, the suspension was mixed and allowed to stand for 2 h at 4°C. All samples were incubated for 1 h at 4°C and then centrifuged at 3400*g for 25 min. Immediately after the centrifugation, the supernatant was decanted and counted in a γ-counter. The concentration in the samples was calculated from individual standard curves.

The findings show that the GLP-1 derivatives of the invention have a protracted profile of action relative to GLP-1(7-37) and are much more persistent in plasma than GLP-1(7-37). The time at which the peak concentration in plasma is achieved varies within wide limits, depending on the particular GLP-1 derivative selected.

Stimulation of cAMP formation in a cell line expressing the cloned human GLP-1 receptor

In order to demonstrate efficacy of the GLP-1 derivatives, their ability to stimulate formation of cAMP in a cell line expressing the cloned human GLP-1 receptor was tested. An EC_{50} was calculated from the dose-response curve.

Baby hamster kidney (BHK) cells expressing the human pancreatic GLP-1 receptor were used (Knudsen and Pridal, 1996, Eur. J. Pharm. 318, 429-435). Plasma membranes were prepared (Adelhorst *et al*, 1994, J. Biol. Chem. 269, 6275) by homogenisation in buffer (10 mmol/l Tris-HCl and 30 mmol/l NaCl pH 7.4, containing, in addition, 1 mmol/l dithiothreitol, 5 mg/l leupeptin (Sigma, St. Louis, MO, USA), 5 mg/l pepstatin (Sigma, St. Louis, MO, USA),

100 mg/l bacitracin (Sigma, St. Louis, MO, USA), and 16 mg/l aprotinin (Novo Nordisk A/S, Bagsvaerd, Denmark)). The homogenate was centrifuged on top of a layer of 41 w/v% sucrose. The white band between the two layers was diluted in buffer and centrifuged. Plasma membranes were stored at -80°C until used.

The assay was carried out in 96-well microtiter plates in a total volume of 140 µl. The buffer used was 50 mmol/l Tris-HCl, pH 7.4 with the addition of 1 mmol/l EGTA, 1.5 mmol/l $MgSO_4$, 1.7 mmol/l ATP, 20 mM GTP, 2 mmol/l 3-isobutyl-1-methylxanthine, 0.01 % Tween-20 and 0.1 % human serum albumin (Reinst, Behringwerke AG, Marburg, Germany). Compounds to be tested for agonist activity were dissolved and diluted in buffer, added to the membrane preparation and the mixture was incubated for 2 h at 37°C. The reaction was stopped by the addition of 25 µl of 0.05 mol/l HCl. Samples were diluted 10 fold before analysis for cAMP by a scintillation proximity assay (RPA 538, Amersham, UK).

CLAIMS

1. A derivative of GLP-1 analog of formula I:

```
 7   8   9  10  11  12  13  14  15  16  17
His-Xaa-Xaa-Gly-Xaa-Phe-Thr-Xaa-Asp-Xaa-Xaa-

18  19  20  21  22  23  24  25  26  27  28
Xaa-Xaa-Xaa-Xaa-Xaa-Xaa-Xaa-Xaa-Xaa-Xaa-Phe-

29  30  31  32  33  34  35  36  37  38
Ile-Xaa-Xaa-Xaa-Xaa-Xaa-Xaa-Xaa-Xaa-Xaa

39  40  41  42  43  44  45
Xaa-Xaa-Xaa-Xaa-Xaa-Xaa-Xaa
```

wherein

Xaa at position 8 is Ala, Gly, Ser, Thr, Leu, Ile, Val, Glu, Asp, or Lys,

Xaa at position 9 is Glu, Asp, or Lys,

Xaa at position 11 is Thr, Ala, Gly, Ser, Leu, Ile, Val, Glu, Asp, or Lys,

Xaa at position 14 is Ser, Ala, Gly, Thr, Leu, Ile, Val, Glu, Asp, or Lys,

Xaa at position 16 is Val, Ala, Gly, Ser, Thr, Leu, Ile, Tyr, Glu, Asp, or Lys,

Xaa at position 17 is Ser, Ala, Gly, Thr, Leu, Ile, Val, Glu, Asp, or Lys,

Xaa at position 18 is Ser, Ala, Gly, Thr, Leu, Ile, Val, Glu, Asp, or Lys,

Xaa at position 19 is Tyr, Phe, Trp, Glu, Asp, or Lys,

Xaa at position 20 is Leu, Ala, Gly, Ser, Thr, Leu, Ile, Val, Glu, Asp, or Lys,

Xaa at position 21 is Glu, Asp, or Lys,

Xaa at position 22 is Gly, Ala, Ser, Thr, Leu, Ile, Val, Glu, Asp, or Lys,

Xaa at position 23 is Gln, Asn, Arg, Glu, Asp, or Lys,

Xaa at position 24 is Ala, Gly, Ser, Thr, Leu, Ile, Val, Arg, Glu, Asp, or Lys,

Xaa at position 25 is Ala, Gly, Ser, Thr, Leu, Ile, Val, Glu, Asp, or Lys,

Xaa at position 26 is Lys, Arg, Gln, Glu, Asp, or His,

Xaa at position 27 is Glu, Asp, or Lys,

Xaa at position 30 is Ala, Gly, Ser, Thr, Leu, Ile, Val, Glu, Asp, or Lys,

Xaa at position 31 is Trp, Phe, Tyr, Glu, Asp, or Lys,

Xaa at position 32 is Leu, Gly, Ala, Ser, Thr, Ile, Val, Glu, Asp, or Lys,

Xaa at position 33 is Val, Gly, Ala, Ser, Thr, Leu, Ile, Glu, Asp, or Lys,

Xaa at position 34 is Lys, Arg, Glu, Asp, or His,

Xaa at position 35 is Gly, Ala, Ser, Thr, Leu, Ile, Val, Glu, Asp, or Lys,

Xaa at position 36 is Arg, Lys, Glu, Asp, or His,

Xaa at position 37 is Gly, Ala, Ser, Thr, Leu, Ile, Val, Glu, Asp, or Lys, or is deleted,

Xaa at position 38 is Arg, Lys, Glu, Asp, or His, or is deleted,

Xaa at position 39 is Arg, Lys, Glu, Asp, or His, or is deleted,

Xaa at position 40 is Asp, Glu, or Lys, or is deleted,

Xaa at position 41 is Phe, Trp, Tyr, Glu, Asp, or Lys, or is deleted,

Xaa at position 42 is Pro, Lys, Glu, or Asp, or is deleted,

Xaa at position 43 is Glu, Asp, or Lys, or is deleted,

Xaa at position 44 is Glu, Asp, or Lys, or is deleted, and

Xaa at position 45 is Val, Glu, Asp, or Lys, or is deleted, or

(a) a C-1-6-ester thereof, (b) amide, C-1-6-alkylamide, or C-1-6-dialkylamide thereof and/or (c) a pharmaceutically acceptable salt thereof,

provided that

A. when the amino acid at position 37, 38, 39, 40, 41, 42, 43 or 44 is deleted, then each amino acid downstream of the amino acid is also deleted,

B. the derivative of the GLP-1 analog contains only one or two Lys,

C. the ε-amino group of one or both Lys is substituted with a lipophilic substituent optionally via a spacer,

D. the total number of different amino acids between the derivative of the GLP-1 analog and the corresponding native form of GLP-1 does not exceed six,

E. the derivative of GLP-1 analog of formula I is not selected from:

$Lys^{26}(N^{\varepsilon}$-tetradecanoyl)-GLP-1(7-37),

$Lys^{34}(N^{\varepsilon}$-tetradecanoyl)-GLP-1(7-37),

$Lys^{26,34}$-bis(N^{ε}-tetradecanoyl)-GLP-1(7-37),

$Lys^{26}(N^{\varepsilon}$-tetradecanoyl)Arg^{34}-GLP-1(7-37),

$Gly^{8}Arg^{26,34}Lys^{36}(N^{\varepsilon}$-tetradecanoyl)-GLP-1(7-37),

$Arg^{26,34}Lys^{36}$ (N^{ε}-tetradecanoyl)-GLP-1(7-37)-OH,

$Lys^{26,34}$bis(N^{ε}-(ω–carboxynonadecanoyl))-GLP-1(7-37)-OH,

$Arg^{26,34}Lys^{36}(N^{\varepsilon}$-(ω-carboxynonadecanoyl))-GLP-1(7-36)-OH,

$Arg^{26,34}Lys^{38}(N^{\varepsilon}$-(ω–carboxynonadecanoyl))-GLP-1(7-38)-OH,

$Arg^{34}Lys^{26}$ (N^{ε}-(ω–carboxynonadecanoyl))-GLP-1(7-37)-OH,

$Arg^{34}Lys^{26}$ (N^{ε}-(ω–carboxyheptadecanoyl))-GLP-1(7-37)-OH,

$Arg^{26,34}Lys^{36}$ (N^{ε}-(ω–carboxyheptadecanoyl))-GLP-1(7-37)-OH,

$Arg^{26,34}Lys^{38}(N^{\varepsilon}$-(ω–carboxyheptadecanoyl))-GLP-1(7-38)-OH,

$Arg^{26,34}Lys^{36}$ (N^{ε}-(ω–carboxyheptadecanoyl))-GLP-1(7-36)-OH,

$Arg^{26,34}Lys^{36}$ (N^{ε}-(ω–carboxyundecanoyl))-GLP-1(7-37)-OH,

$Arg^{26,34}Lys^{38}(N^{\varepsilon}$-(ω–carboxyundecanoyl))-GLP-1(7-38)-OH,

$Lys^{26,34}$bis(N^{ε}-(ω–carboxyundecanoyl))-GLP-1(7-37)-OH,

$Arg^{26,34}Lys^{36}$ (N^{ε}-(ω–carboxyundecanoyl))-GLP-1(7-36)-OH,

$Arg^{34}Lys^{26}$ (N^{ε}-(ω–carboxyundecanoyl))-GLP-1(7-37)-OH,

$Arg^{34}Lys^{26}$ (N^{ε}-(ω–carboxyheptanoyl))-GLP-1(7-37)-OH,

$Arg^{26,34}Lys^{38}(N^{\varepsilon}$-(ω–carboxyheptanoyl))-GLP-1(7-38)-OH,

$Arg^{26,34}Lys^{36}$ (N^{ε}-(ω–carboxyheptanoyl))-GLP-1(7-37)-OH,

$Arg^{26,34}Lys^{36}$ (N^{ε}-(ω–carboxyheptanoyl))-GLP-1(7-36)-OH,

$Lys^{26,34}$bis(N^{ε}-(ω–carboxyheptanoyl))-GLP-1(7-37)-OH,

$Arg^{34}Lys^{26}$ (N^{ε}-(ω–carboxypentadecanoyl))-GLP-1(7-37)-OH,

$Arg^{26,34}Lys^{36}$ (N^{ε}-(ω–carboxyheptanoyl))-GLP-1(7-36)-OH,

$Arg^{34}Lys^{26}(N^{\varepsilon}$-lithocholyl)-GLP-1(7-37)-OH,

$Glu^{22,23,30}Arg^{26,34}Lys^{38}(N^{\varepsilon}$-(γ-glutamyl($N^{\alpha}$-tetradecanoyl)))-GLP-1(7-38)-OH,

$Glu^{23,26}Arg^{34}Lys^{38}(N^{\varepsilon}$-(γ-glutamyl($N^{\alpha}$-tetradecanoyl)))-GLP-1(7-38)-OH,

$Lys^{26,34}$-bis(N^{ε}-(ω-carboxytridecanoyl))-GLP-1(7-37)-OH,

$Lys^{26,34}$-bis(N^{ε}-(γ-glutamyl(N^{α}-tetradecanoyl)))-GLP-1(7-37)-OH,

$Arg^{26,34}Lys^{38}(N^{\varepsilon}$-(ω-carboxypentadecanoyl))-GLP-1(7-38)-OH,

$Lys^{26,34}$-bis(N^{ε}-(γ-glutamyl(N^{α}-hexadecanoyl)))-GLP-1(7-37)-OH,

$Arg^{34}Lys^{26}(N^{\varepsilon}$-(γ-glutamyl($N^{\alpha}$-hexadecanoyl)))-GLP-1(7-37)-OH,

$Arg^{26,34}Lys^{38}(N^{\varepsilon}$-(γ-glutamyl($N^{\alpha}$-tetradecanoyl)))-GLP-1(7-38)-OH,

$Arg^{26,34}Lys^{38}(N^{\varepsilon}$-(ω-carboxypentadecanoyl))-GLP-1(7-38)-OH,

$Arg^{26,34}Lys^{38}(N^{\varepsilon}$-(γ-glutamyl($N^{\alpha}$-hexadecanoyl)))-GLP-1(7-38)-OH,

$Arg^{18,23,26,30,34}Lys^{38}(N^{\varepsilon}$-hexadecanoyl)-GLP-1(7-38)-OH,

$Arg^{26,34}Lys^{38}(N^{\varepsilon}$-(ω-carboxytridecanoyl))-GLP-1(7-38)-OH,

$Arg^{34}Lys^{26}(N^{\varepsilon}$-(γ-glutamyl($N^{\alpha}$-tetradecanoyl)))-GLP-1(7-37)-OH,

$Arg^{26,34}Lys^{38}(N^{\varepsilon}$-(γ-glutamyl($N^{\alpha}$-octadecanoyl)))-GLP-1(7-38)-OH,

Lys^{26}(N^{ε}-tetradecanoyl)-GLP-1(7-37);

Lys^{34}(N^{ε}-tetradecanoyl)-GLP-1(7-37);

$Lys^{26,34}$-bis(N^{ε}-tetradecanoyl)-GLP-1(7-37);

$Gly^{8}Lys^{26}$(N^{ε}-tetradecanoyl)-GLP-1(7-37);

$Gly^{8}Lys^{34}$(N^{ε}-tetradecanoyl)-GLP-1(7-37);

$Gly^{8}Lys^{26,34}$-bis(N^{ε}-tetradecanoyl)-GLP-1(7-37);

$Arg^{26}Lys^{34}$(N^{ε}-tetradecanoyl)-GLP-1(7-37);

Lys^{26}(N^{ε}-tetradecanoyl)-GLP-1(7-38);

Lys^{34}(N^{ε}-tetradecanoyl)-GLP-1(7-38);

$Lys^{26,34}$-bis(N^{ε}-tetradecanoyl)-GLP-1(7-38);

$Gly^{8}Lys^{26}$(N^{ε}-tetradecanoyl)-GLP-1(7-38);

$Gly^{8}Lys^{34}$(N^{ε}-tetradecanoyl)-GLP-1(7-38);

$Gly^{8}Lys^{26,34}$-bis(N^{ε}-tetradecanoyl)-GLP-1(7-38);

$Arg^{26}Lys^{34}$(N^{ε}-tetradecanoyl)-GLP-1(7-38);

Lys^{26}(N^{ε}-tetradecanoyl)-GLP-1(7-39);

Lys^{34}(N^{ε}-tetradecanoyl)-GLP-1(7-39);

$Lys^{26,34}$-bis(N^{ε}-tetradecanoyl)-GLP-1(7-39);

$Gly^{8}Lys^{26}$(N^{ε}-tetradecanoyl)-GLP-1(7-39);

$Gly^{8}Lys^{34}$(N^{ε}-tetradecanoyl)-GLP-1(7-39);

$Gly^{8}Lys^{26,34}$-bis(N^{ε}-tetradecanoyl)-GLP-1(7-39);

$Arg^{26}Lys^{34}$(N^{ε}-tetradecanoyl)-GLP-1(7-39);

Lys^{26}(N^{ε}-tetradecanoyl)-GLP-1(7-40);

Lys^{34}(N^{ε}-tetradecanoyl)-GLP-1(7-40);

$Lys^{26,34}$-bis(N^{ε}-tetradecanoyl)-GLP-1(7-40);

$Gly^{8}Lys^{26}$(N^{ε}-tetradecanoyl)-GLP-1(7-40);

$Gly^{8}Lys^{34}$(N^{ε}-tetradecanoyl)-GLP-1(7-40);

$Gly^{8}Lys^{26,34}$-bis(N^{ε}-tetradecanoyl)-GLP-1(7-40);

$Arg^{26}Lys^{34}$(N^{ε}-tetradecanoyl)-GLP-1(7-40);

Lys^{26}(N^{ε}-tetradecanoyl)-GLP-1(7-36);

Lys^{34}(N^{ε}-tetradecanoyl)-GLP-1(7-36);

$Lys^{26,34}$-bis(N^{ε}-tetradecanoyl)-GLP-1(7-36);

$Gly^{8}Lys^{26}$(N^{ε}-tetradecanoyl)-GLP-1(7-36);

$Gly^{8}Lys^{34}(N^{\varepsilon}$-tetradecanoyl)-GLP-1(7-36);

$Gly^{8}Lys^{26,34}$-bis(N^{ε}-tetradecanoyl)-GLP-1(7-36);

$Arg^{26}Lys^{34}(N^{\varepsilon}$-tetradecanoyl)-GLP-1(7-36);

$Lys^{26}(N^{\varepsilon}$-tetradecanoyl)-GLP-1(7-35);

$Lys^{34}(N^{\varepsilon}$-tetradecanoyl)-GLP-1(7-35);

$Lys^{26,34}$-bis(N^{ε}-tetradecanoyl)-GLP-1(7-35);

$Gly^{8}Lys^{26}(N^{\varepsilon}$-tetradecanoyl)-GLP-1(7-35);

$Gly^{8}Lys^{34}(N^{\varepsilon}$-tetradecanoyl)-GLP-1(7-35);

$Gly^{8}Lys^{26,34}$-bis(N^{ε}-tetradecanoyl)-GLP-1(7-35);

$Arg^{26}Lys^{34}(N^{\varepsilon}$-tetradecanoyl)-GLP-1(7-35);

$Lys^{26}(N^{\varepsilon}$-tetradecanoyl)-GLP-1(7-36)amide;

$Lys^{34}(N^{\varepsilon}$-tetradecanoyl)-GLP-1(7-36)amide;

$Lys^{26,34}$-bis(N^{ε}-tetradecanoyl)-GLP-1(7-36)amide;

$Gly^{8}Lys^{26}(N^{\varepsilon}$-tetradecanoyl)-GLP-1(7-36)amide;

$Gly^{8}Lys^{34}(N^{\varepsilon}$-tetradecanoyl)-GLP-1(7-36)amide;

$Gly^{8}Lys^{26,34}$-bis(N^{ε}-tetradecanoyl)-GLP-1(7-36)amide;

$Arg^{26}Lys^{34}(N^{\varepsilon}$-tetradecanoyl)-GLP-1(7-36)amide;

$Gly^{8}Arg^{26}Lys^{34}(N^{\varepsilon}$-tetradecanoyl)-GLP-1(7-37);

$Lys^{26}(N^{\varepsilon}$-tetradecanoyl)Arg^{34}-GLP-1(7-37);

$Gly^{8}Lys^{26}(N^{\varepsilon}$-tetradecanoyl)$Arg^{34}$-GLP-1(7-37);

$Arg^{26,34}Lys^{36}(N^{\varepsilon}$-tetradecanoyl)-GLP-1(7-37);

$Gly^{8}Arg^{26,34}Lys^{36}(N^{\varepsilon}$-tetradecanoyl)-GLP-1(7-37);

$Gly^{8}Arg^{26}Lys^{34}(N^{\varepsilon}$-tetradecanoyl)-GLP-1(7-38);

$Lys^{26}(N^{\varepsilon}$-tetradecanoyl)Arg^{34}-GLP-1(7-38);

$Gly^{8}Lys^{26}(N^{\varepsilon}$-tetradecanoyl)$Arg^{34}$-GLP-1(7-38);

$Arg^{26,34}Lys^{36}(N^{\varepsilon}$-tetradecanoyl)-GLP-1(7-38);

$Arg^{26,34}Lys^{38}(N^{\varepsilon}$-tetradecanoyl)-GLP-1(7-38);

$Gly^{8}Arg^{26,34}Lys^{36}(N^{\varepsilon}$-tetradecanoyl)-GLP-1(7-38);

$Gly^{8}Arg^{26}Lys^{34}(N^{\varepsilon}$-tetradecanoyl)-GLP-1(7-39);

$Lys^{26}(N^{\varepsilon}$-tetradecanoyl)Arg^{34}-GLP-1(7-39);

$Gly^{8}Lys^{26}(N^{\varepsilon}$-tetradecanoyl)$Arg^{34}$-GLP-1(7-39);

$Arg^{26,34}Lys^{36}(N^{\varepsilon}$-tetradecanoyl)-GLP-1(7-39);

$Gly^{8}Arg^{26,34}Lys^{36}(N^{\varepsilon}$-tetradecanoyl)-GLP-1(7-39);

$Gly^{8}Arg^{26}Lys^{34}(N^{\varepsilon}$-tetradecanoyl)-GLP-1(7-40);

$Lys^{26}(N^{\varepsilon}$-tetradecanoyl)Arg^{34}-GLP-1(7-40);

$Gly^{8}Lys^{26}(N^{\varepsilon}$-tetradecanoyl)$Arg^{34}$-GLP-1(7-40);

$Arg^{26,34}Lys^{36}(N^{\varepsilon}$-tetradecanoyl)-GLP-1(7-40);

$Gly^{8}Arg^{26,34}Lys^{36}(N^{\varepsilon}$-tetradecanoyl)-GLP-1(7-40);

$Lys^{26}(N^{\varepsilon}$-(ω-carboxynonadecanoyl))-GLP-1(7-37);

$Lys^{34}(N^{\varepsilon}$-(ω-carboxynonadecanoyl))-GLP-1(7-37);

$Lys^{26,34}$-bis(N^{ε}-(ω-carboxynonadecanoyl))-GLP-1(7-37);

$Gly^{8}Lys^{26}(N^{\varepsilon}$-(ω-carboxynonadecanoyl))-GLP-1(7-37);

$Gly^{8}Lys^{34}(N^{\varepsilon}$-(ω-carboxynonadecanoyl))-GLP-1(7-37);

$Gly^{8}Lys^{26,34}$-bis(N^{ε}-(ω-carboxynonadecanoyl))-GLP-1(7-37);

$Lys^{26}(N^{\varepsilon}$-(ω-carboxynonadecanoyl))-GLP-1(7-38);

$Lys^{34}(N^{\varepsilon}$-(ω-carboxynonadecanoyl))-GLP-1(7-38);

$Lys^{26,34}$-bis(N^{ε}-(ω-carboxynonadecanoyl))-GLP-1(7-38);

$Gly^{8}Lys^{26}(N^{\varepsilon}$-(ω-carboxynonadecanoyl))-GLP-1(7-38);

$Gly^{8}Lys^{34}(N^{\varepsilon}$-(ω-carboxynonadecanoyl))-GLP-1(7-38);

$Gly^{8}Lys^{26,34}$-bis(N^{ε}-(ω-carboxynonadecanoyl))-GLP-1(7-38);

$Lys^{26}(N^{\varepsilon}$-(ω-carboxynonadecanoyl))-GLP-1(7-39);

$Lys^{34}(N^{\varepsilon}$-(ω-carboxynonadecanoyl))-GLP-1(7-39);

$Lys^{26,34}$-bis(N^{ε}-(ω-carboxynonadecanoyl))-GLP-1(7-39);

$Gly^{8}Lys^{26}(N^{\varepsilon}$-(ω-carboxynonadecanoyl))-GLP-1(7-39);

$Gly^{8}Lys^{34}(N^{\varepsilon}$-(ω-carboxynonadecanoyl))-GLP-1(7-39);

$Gly^{8}Lys^{26,34}$-bis(N^{ε}-(ω-carboxynonadecanoyl))-GLP-1(7-39);

$Lys^{26}(N^{\varepsilon}$-(ω-carboxynonadecanoyl))-GLP-1(7-40);

$Lys^{34}(N^{\varepsilon}$-(ω-carboxynonadecanoyl))-GLP-1(7-40);

$Lys^{26,34}$-bis(N^{ε}-(ω-carboxynonadecanoyl))-GLP-1(7-40);

$Gly^{8}Lys^{26}(N^{\varepsilon}$-(ω-carboxynonadecanoyl))-GLP-1(7-40);

$Gly^{8}Lys^{34}(N^{\varepsilon}$-(ω-carboxynonadecanoyl))-GLP-1(7-40);

$Gly^{8}Lys^{26,34}$-bis(N^{ε}-(ω-carboxynonadecanoyl))-GLP-1(7-40);

$Lys^{26}(N^{\varepsilon}$-(ω-carboxynonadecanoyl))-GLP-1(7-36);

$Lys^{34}(N^{\varepsilon}$-(ω–carboxynonadecanoyl))-GLP-1(7-36);

$Lys^{26,34}$-bis(N^{ε}-(ω-carboxynonadecanoyl))-GLP-1(7-36);

$Gly^{8}Lys^{26}(N^{\varepsilon}$-(ω-carboxynonadecanoyl))-GLP-1(7-36);

$Gly^{8}Lys^{34}(N^{\varepsilon}$-(ω-carboxynonadecanoyl))-GLP-1(7-36);

$Gly^{8}Lys^{26,34}$-bis(N^{ε}-(ω-carboxynonadecanoyl))-GLP-1(7-36);

$Lys^{26}(N^{\varepsilon}$-(ω-carboxynonadecanoyl))-GLP-1(7-36)amide;

$Lys^{34}(N^{\varepsilon}$-(ω-carboxynonadecanoyl))-GLP-1(7-36)amide;

$Lys^{26,34}$-bis(N^{ε}-(ω-carboxynonadecanoyl))-GLP-1(7-36)amide;

$Gly^{8}Lys^{26}(N^{\varepsilon}$-(ω-carboxynonadecanoyl))-GLP-1(7-36)amide;

$Gly^{8}Lys^{34}(N^{\varepsilon}$-(ω-carboxynonadecanoyl))-GLP-1(7-36)amide;

$Gly^{8}Lys^{26,34}$-bis(N^{ε}-(ω-carboxynonadecanoyl))-GLP-1(7-36)amide;

$Lys^{26}(N^{\varepsilon}$-(ω-carboxynonadecanoyl))-GLP-1(7-35);

$Lys^{34}(N^{\varepsilon}$-(ω–carboxynonadecanoyl))-GLP-1(7-35);

$Lys^{26,34}$-bis(N^{ε}-(ω–carboxynonadecanoyl))-GLP-1(7-35);

$Gly^{8}Lys^{26}(N^{\varepsilon}$-(ω–carboxynonadecanoyl))-GLP-1(7-35);

$Gly^{8}Lys^{34}(N^{\varepsilon}$-(ω–carboxynonadecanoyl))-GLP-1(7-35);

$Gly^{8}Lys^{26,34}$-bis(N^{ε}-(ω–carboxynonadecanoyl))-GLP-1(7-35);

$Arg^{26}Lys^{34}(N^{\varepsilon}$-(ω–carboxynonadecanoyl))-GLP-1(7-37);

$Gly^{8}Arg^{26}Lys^{34}(N^{\varepsilon}$-(ω–carboxynonadecanoyl))-GLP-1(7-37);

$Lys^{26}(N^{\varepsilon}$-(ω–carboxynonadecanoyl))Arg^{34}-GLP-1(7-37);

$Gly^{8}Lys^{26}(N^{\varepsilon}$-(ω–carboxynonadecanoyl))Arg^{34}-GLP-1(7-37);

$Arg^{26,34}Lys^{36}(N^{\varepsilon}$-(ω–carboxynonadecanoyl))-GLP-1(7-37);

$Gly^{8}Arg^{26,34}Lys^{36}(N^{\varepsilon}$-(ω–carboxynonadecanoyl))-GLP-1(7-37);

$Arg^{26}Lys^{34}(N^{\varepsilon}$-(ω–carboxynonadecanoyl))-GLP-1(7-38);

$Gly^{8}Arg^{26}Lys^{34}(N^{\varepsilon}$-(ω–carboxynonadecanoyl))-GLP-1(7-38);

$Lys^{26}(N^{\varepsilon}$-(ω–carboxynonadecanoyl))Arg^{34}-GLP-1(7-38);

$Gly^{8}Lys^{26}(N^{\varepsilon}$-(ω–carboxynonadecanoyl))Arg^{34}-GLP-1(7-38);

$Arg^{26,34}Lys^{36}(N^{\varepsilon}$-(ω–carboxynonadecanoyl))-GLP-1(7-38);

$Arg^{26,34}Lys^{38}(N^{\varepsilon}$-(ω–carboxynonadecanoyl))-GLP-1(7-38);

$Gly^{8}Arg^{26,34}Lys^{36}(N^{\varepsilon}$-(ω–carboxynonadecanoyl))-GLP-1(7-38);

$Arg^{26}Lys^{34}(N^{\varepsilon}$-(ω–carboxynonadecanoyl))-GLP-1(7-39);

$Gly^{8}Arg^{26}Lys^{34}(N^{\varepsilon}$-(ω–carboxynonadecanoyl))-GLP-1(7-39);

$Lys^{26}(N^{\varepsilon}$-(ω–carboxynonadecanoyl))Arg^{34}-GLP-1(7-39);

$Gly^{8}Lys^{26}(N^{\varepsilon}$-(ω–carboxynonadecanoyl))Arg^{34}-GLP-1(7-39);

$Arg^{26,34}Lys^{36}(N^{\varepsilon}$-(ω–carboxynonadecanoyl))-GLP-1(7-39);

$Gly^{8}Arg^{26,34}Lys^{36}(N^{\varepsilon}$-(ω–carboxynonadecanoyl))-GLP-1(7-39);

$Arg^{26}Lys^{34}(N^{\varepsilon}$-(ω–carboxynonadecanoyl))-GLP-1(7-40);

$Gly^{8}Arg^{26}Lys^{34}(N^{\varepsilon}$-(ω–carboxynonadecanoyl))-GLP-1(7-40);

$Lys^{26}(N^{\varepsilon}$-(ω–carboxynonadecanoyl))Arg^{34}-GLP-1(7-40);

$Gly^{8}Lys^{26}(N^{\varepsilon}$-(ω–carboxynonadecanoyl))Arg^{34}-GLP-1(7-40);

$Arg^{26,34}Lys^{36}(N^{\varepsilon}$-(ω–carboxynonadecanoyl))-GLP-1(7-40);

$Gly^{8}Arg^{26,34}Lys^{36}(N^{\varepsilon}$-(ω–carboxynonadecanoyl))-GLP-1(7-40);

$Lys^{26}(N^{\varepsilon}$-(7-deoxycholoyl))-GLP-1(7-37);

$Lys^{34}(N^{\varepsilon}$-(7-deoxycholoyl))-GLP-1(7-37);

$Lys^{26,34}$-bis(N^{ε}-(7-deoxycholoyl))-GLP-1(7-37);

$Gly^{8}Lys^{26}(N^{\varepsilon}$-(7-deoxycholoyl))-GLP-1(7-37);

$Gly^{8}Lys^{34}(N^{\varepsilon}$-(7-deoxycholoyl))-GLP-1(7-37);

$Gly^{8}Lys^{26,34}$-bis(N^{ε}-(7-deoxycholoyl))-GLP-1(7-37);

$Arg^{26}Lys^{34}(N^{\varepsilon}$-(7-deoxycholoyl))-GLP-1(7-37);

$Lys^{26}(N^{\varepsilon}$-(7-deoxycholoyl))-GLP-1(7-38);

$Lys^{34}(N^{\varepsilon}$-(7-deoxycholoyl))-GLP-1(7-38);

$Lys^{26,34}$-bis(N^{ε}-(7-deoxycholoyl))-GLP-1(7-38);

$Gly^{8}Lys^{26}(N^{\varepsilon}$-(7-deoxycholoyl))-GLP-1(7-38);

$Gly^{8}Lys^{34}(N^{\varepsilon}$-(7-deoxycholoyl))-GLP-1(7-38);

$Gly^{8}Lys^{26,34}$-bis(N^{ε}-(7-deoxycholoyl))-GLP-1(7-38);

$Arg^{26}Lys^{34}(N^{\varepsilon}$-(7-deoxycholoyl))-GLP-1(7-38);

$Lys^{26}(N^{\varepsilon}$-(7-deoxycholoyl))-GLP-1(7-39);

$Lys^{34}(N^{\varepsilon}$-(7-deoxycholoyl))-GLP-1(7-39);

$Lys^{26,34}$-bis(N^{ε}-(7-deoxycholoyl))-GLP-1(7-39);

$Gly^{8}Lys^{26}(N^{\varepsilon}$-(7-deoxycholoyl))-GLP-1(7-39);

$Gly^{8}Lys^{34}(N^{\varepsilon}$-(7-deoxycholoyl))-GLP-1(7-39);

$Gly^{8}Lys^{26,34}$-bis(N^{ε}-(7-deoxycholoyl))-GLP-1(7-39);

$Arg^{26}Lys^{34}(N^{\varepsilon}$-(7-deoxycholoyl))-GLP-1(7-39);

$Lys^{26}(N^{\varepsilon}$-(7-deoxycholoyl))-GLP-1(7-40);

$Lys^{34}(N^{\varepsilon}$-(7-deoxycholoyl))-GLP-1(7-40);

$Lys^{26,34}$-bis(N^{ε}-(7-deoxycholoyl))-GLP-1(7-40);

$Gly^{8}Lys^{26}(N^{\varepsilon}$-(7-deoxycholoyl))-GLP-1(7-40);

$Gly^{8}Lys^{34}(N^{\varepsilon}$-(7-deoxycholoyl))-GLP-1(7-40);

$Gly^{8}Lys^{26,34}$-bis(N^{ε}-(7-deoxycholoyl))-GLP-1(7-40);

$Arg^{26}Lys^{34}(N^{\varepsilon}$-(7-deoxycholoyl))-GLP-1(7-40);

$Lys^{26}(N^{\varepsilon}$-(7-deoxycholoyl))-GLP-1(7-36);

$Lys^{34}(N^{\varepsilon}$-(7-deoxycholoyl))-GLP-1(7-36);

$Lys^{26,34}$-bis(N^{ε}-(7-deoxycholoyl))-GLP-1(7-36);

$Gly^{8}Lys^{26}(N^{\varepsilon}$-(7-deoxycholoyl))-GLP-1(7-36);

$Gly^{8}Lys^{34}(N^{\varepsilon}$-(7-deoxycholoyl))-GLP-1(7-36);

$Gly^{8}Lys^{26,34}$-bis(N^{ε}-(7-deoxycholoyl))-GLP-1(7-36);

$Arg^{26}Lys^{34}(N^{\varepsilon}$-(7-deoxycholoyl))-GLP-1(7-36);

$Lys^{26}(N^{\varepsilon}$-(7-deoxycholoyl))-GLP-1(7-35);

$Lys^{34}(N^{\varepsilon}$-(7-deoxycholoyl))-GLP-1(7-35);

$Lys^{26,34}$-bis(N^{ε}-(7-deoxycholoyl))-GLP-1(7-35);

$Gly^{8}Lys^{26}(N^{\varepsilon}$-(7-deoxycholoyl))-GLP-1(7-35);

$Gly^{8}Lys^{34}(N^{\varepsilon}$-(7-deoxycholoyl))-GLP-1(7-35);

$Gly^{8}Lys^{26,34}$-bis(N^{ε}-(7-deoxycholoyl))-GLP-1(7-35);

$Arg^{26}Lys^{34}(N^{\varepsilon}$-(7-deoxycholoyl))-GLP-1(7-35);

$Lys^{26}(N^{\varepsilon}$-(7-deoxycholoyl))-GLP-1(7-36)amide;

$Lys^{34}(N^{\varepsilon}$-(7-deoxycholoyl))-GLP-1(7-36)amide;

$Lys^{26,34}$-bis(N^{ε}-(7-deoxycholoyl))-GLP-1(7-36)amide;

$Gly^{8}Lys^{26}(N^{\varepsilon}$-(7-deoxycholoyl))-GLP-1(7-36)amide;

$Gly^{8}Lys^{34}(N^{\varepsilon}$-(7-deoxycholoyl))-GLP-1(7-36)amide;

$Gly^{8}Lys^{26,34}$-bis(N^{ε}-(7-deoxycholoyl))-GLP-1(7-36)amide;

$Arg^{26}Lys^{34}(N^{\varepsilon}$-(7-deoxycholoyl))-GLP-1(7-36)amide;

$Gly^{8}Arg^{26}Lys^{34}(N^{\varepsilon}$-(7-deoxycholoyl))-GLP-1(7-37);

$Lys^{26}(N^{\varepsilon}$-(7-deoxycholoyl))Arg^{34}-GLP-1(7-37);

$Gly^{8}Lys^{26}(N^{\varepsilon}$-(7-deoxycholoyl))$Arg^{34}$-GLP-1(7-37);

$Arg^{26,34}Lys^{36}(N^{\varepsilon}$-(7-deoxycholoyl))-GLP-1(7-37);

$Gly^{8}Arg^{26,34}Lys^{36}(N^{\varepsilon}$-(7-deoxycholoyl))-GLP-1(7-37);

$Lys^{26}(N^{\varepsilon}$-(choloyl))-GLP-1(7-37);

$Lys^{34}(N^{\varepsilon}$-(choloyl))-GLP-1(7-37);

$Lys^{26,34}$-bis(N^{ε}-(choloyl))-GLP-1(7-37);

$Gly^{8}Lys^{26}(N^{\varepsilon}$-(choloyl))-GLP-1(7-37);

$Gly^{8}Lys^{34}(N^{\varepsilon}$-(choloyl))-GLP-1(7-37);

$Gly^{8}Lys^{26,34}$-bis(N^{ε}-(choloyl))-GLP-1(7-37);

$Arg^{26}Lys^{34}(N^{\varepsilon}$-(cholyl))-GLP-1(7-37);

$Gly^{8}Arg^{26}Lys^{34}(N^{\varepsilon}$-(7-deoxycholoyl))-GLP-1(7-38);

$Lys^{26}(N^{\varepsilon}$-(7-deoxycholoyl))Arg^{34}-GLP-1(7-38);

$Gly^{8}Lys^{26}(N^{\varepsilon}$-(7-deoxycholoyl))$Arg^{34}$-GLP-1(7-38);

$Arg^{26,34}Lys^{36}(N^{\varepsilon}$-(7-deoxycholoyl))-GLP-1(7-38);

$Arg^{26,34}Lys^{38}(N^{\varepsilon}$-(7-deoxycholoyl))-GLP-1(7-38);

$Gly^{8}Arg^{26,34}Lys^{36}(N^{\varepsilon}$-(7-deoxycholoyl))-GLP-1(7-38);

$Lys^{26}(N^{\varepsilon}$-(cholyl))-GLP-1(7-38);

$Lys^{34}(N^{\varepsilon}$-(cholyl))-GLP-1(7-38);

$Lys^{26,34}$-bis(N^{ε}-(cholyl))-GLP-1(7-38);

$Gly^{8}Lys^{26}(N^{\varepsilon}$-(cholyl))-GLP-1(7-38);

$Gly^{8}Lys^{34}(N^{\varepsilon}$-(cholyl))-GLP-1(7-38);

$Gly^{8}Lys^{26,34}$-bis(N^{ε}-(cholyl))-GLP-1(7-38);

$Arg^{26}Lys^{34}(N^{\varepsilon}$-(cholyl))-GLP-1(7-38);

$Gly^{8}Arg^{26}Lys^{34}(N^{\varepsilon}$-(7-deoxycholoyl))-GLP-1(7-39);

$Lys^{26}(N^{\varepsilon}$-(7-deoxycholoyl))Arg^{34}-GLP-1(7-39);

$Gly^{8}Lys^{26}(N^{\varepsilon}$-(7-deoxycholoyl))$Arg^{34}$-GLP-1(7-39);

$Arg^{26,34}Lys^{36}(N^{\varepsilon}$-(7-deoxycholoyl))-GLP-1(7-39);

$Gly^{8}Arg^{26,34}Lys^{36}(N^{\varepsilon}$-(7-deoxycholoyl))-GLP-1(7-39);

$Lys^{26}(N^{\varepsilon}$-(cholyl))-GLP-1(7-39);

$Lys^{34}(N^{\varepsilon}$-(cholyl))-GLP-1(7-39);

$Lys^{26,34}$-bis(N^{ε}-(cholyl))-GLP-1(7-39);

$Gly^{8}Lys^{26}(N^{\varepsilon}$-(cholyl))-GLP-1(7-39);

$Gly^{8}Lys^{34}(N^{\varepsilon}$-(cholyl))-GLP-1(7-39);

$Gly^{8}Lys^{26,34}$-bis(N^{ε}-(cholyl))-GLP-1(7-39);

$Arg^{26}Lys^{34}(N^{\varepsilon}$-(cholyl))-GLP-1(7-39);

$Gly^{8}Arg^{26}Lys^{34}(N^{\varepsilon}$-(7-deoxycholoyl))-GLP-1(7-40);

$Lys^{26}(N^{\varepsilon}$-(7-deoxycholoyl))Arg^{34}-GLP-1(7-40);

$Gly^{8}Lys^{26}(N^{\varepsilon}$-(7-deoxycholoyl))$Arg^{34}$-GLP-1(7-40);

$Arg^{26,34}Lys^{36}(N^{\varepsilon}$-(7-deoxycholoyl))-GLP-1(7-40);

$Gly^{8}Arg^{26,34}Lys^{36}(N^{\varepsilon}$-(7-deoxycholoyl))-GLP-1(7-40);

$Lys^{26}(N^{\varepsilon}$-(cholyl))-GLP-1(7-40);

$Lys^{34}(N^{\varepsilon}$-(cholyl))-GLP-1(7-40);

$Lys^{26,34}$-bis(N^{ε}-(choloyl))-GLP-1(7-40);

$Gly^{8}Lys^{26}$(N^{ε}-(choloyl))-GLP-1(7-40);

$Gly^{8}Lys^{34}$(N^{ε}-(choloyl))-GLP-1(7-40);

$Gly^{8}Lys^{26,34}$-bis(N^{ε}-(choloyl))-GLP-1(7-40);

$Arg^{26}Lys^{34}$(N^{ε}-(choloyl))-GLP-1(7-40);

Lys^{26}(N^{ε}-(choloyl))-GLP-1(7-36);

Lys^{34}(N^{ε}-(choloyl))-GLP-1(7-36);

$Lys^{26,34}$-bis(N^{ε}-(choloyl))-GLP-1(7-36);

$Gly^{8}Lys^{26}$(N^{ε}-(choloyl))-GLP-1(7-36);

$Gly^{8}Lys^{34}$(N^{ε}-(choloyl))-GLP-1(7-36);

$Gly^{8}Lys^{26,34}$-bis(N^{ε}-(choloyl))-GLP-1(7-36);

$Arg^{26}Lys^{34}$(N^{ε}-(choloyl))-GLP-1(7-36);

Lys^{26}(N^{ε}-(choloyl))-GLP-1(7-35);

Lys^{34}(N^{ε}-(choloyl))-GLP-1(7-35);

$Lys^{26,34}$-bis(N^{ε}-(choloyl))-GLP-1(7-35);

$Gly^{8}Lys^{26}$(N^{ε}-(choloyl))-GLP-1(7-35);

$Gly^{8}Lys^{34}$(N^{ε}-(choloyl))-GLP-1(7-35);

$Gly^{8}Lys^{26,34}$-bis(N^{ε}-(choloyl))-GLP-1(7-35);

$Arg^{26}Lys^{34}$(N^{ε}-(choloyl))-GLP-1(7-35);

Lys^{26}(N^{ε}-(choloyl))-GLP-1(7-36)amide;

Lys^{34}(N^{ε}-(choloyl))-GLP-1(7-36)amide;

$Lys^{26,34}$-bis(N^{ε}-(choloyl))-GLP-1(7-36)amide;

$Gly^{8}Lys^{26}$(N^{ε}-(choloyl))-GLP-1(7-36)amide;

$Gly^{8}Lys^{34}$(N^{ε}-(choloyl))-GLP-1(7-36)amide;

$Gly^{8}Lys^{26,34}$-bis(N^{ε}-(choloyl))-GLP-1(7-36)amide;

$Arg^{26}Lys^{34}$(N^{ε}-(choloyl))-GLP-1(7-36)amide;

$Gly^{8}Arg^{26}Lys^{34}$(N^{ε}-(choloyl))-GLP-1(7-37);

Arg^{26},Lys^{34} (N^{ε}-(octanoyl)) GLP-1 (7-37)-OH;

Lys^{26}(N^{ε}-(choloyl))Arg^{34}-GLP-1(7-37);

$Gly^{8}Lys^{26}$(N^{ε}-(choloyl))Arg^{34}-GLP-1(7-37);

$Arg^{26,34}Lys^{36}$(N^{ε}-(choloyl))-GLP-1(7-37);

$Gly^{8}Arg^{26,34}Lys^{36}$($N^{\varepsilon}$-(choloyl))-GLP-1(7-37);

Lys^{26}(N^{ε}-(lithocholoyl))-GLP-1(7-37);

$Lys^{34}(N^{\varepsilon}$-(lithocholoyl))-GLP-1(7-37);

$Lys^{26,34}$-bis(N^{ε}-(lithocholoyl))-GLP-1(7-37);

$Gly^{8}Lys^{26}(N^{\varepsilon}$-(lithocholoyl))-GLP-1(7-37);

$Gly^{8}Lys^{34}(N^{\varepsilon}$-(lithocholoyl))-GLP-1(7-37);

$Gly^{8}Lys^{26,34}$-bis(N^{ε}-(lithocholoyl))-GLP-1(7-37);

$Arg^{26}Lys^{34}(N^{\varepsilon}$-(lithocholoyl))-GLP-1(7-37);

$Gly^{8}Arg^{26}Lys^{34}(N^{\varepsilon}$-(choloyl))-GLP-1(7-38);

$Lys^{26}(N^{\varepsilon}$-(choloyl))Arg^{34}-GLP-1(7-38);

$Gly^{8}Lys^{26}(N^{\varepsilon}$-(choloyl))$Arg^{34}$-GLP-1(7-38);

$Arg^{26,34}Lys^{36}(N^{\varepsilon}$-(choloyl))-GLP-1(7-38);

$Arg^{26,34}Lys^{38}(N^{\varepsilon}$-(choloyl))-GLP-1(7-38);

$Gly^{8}Arg^{26,34}Lys^{36}(N^{\varepsilon}$-(choloyl))-GLP-1(7-38);

$Lys^{26}(N^{\varepsilon}$-(lithocholoyl))-GLP-1(7-38);

$Lys^{34}(N^{\varepsilon}$-(lithocholoyl))-GLP-1(7-38);

$Lys^{26,34}$-bis(N^{ε}-(lithocholoyl))-GLP-1(7-38);

$Gly^{8}Lys^{26}(N^{\varepsilon}$-(lithocholoyl))-GLP-1(7-38);

$Gly^{8}Lys^{34}(N^{\varepsilon}$-(lithocholoyl))-GLP-1(7-38);

$Gly^{8}Lys^{26,34}$-bis(N^{ε}-(lithocholoyl))-GLP-1(7-38);

$Arg^{26}Lys^{34}(N^{\varepsilon}$-(lithocholoyl))-GLP-1(7-38);

$Gly^{8}Arg^{26}Lys^{34}(N^{\varepsilon}$-(choloyl))-GLP-1(7-39);

$Lys^{26}(N^{\varepsilon}$-(choloyl))Arg^{34}-GLP-1(7-39);

$Gly^{8}Lys^{26}(N^{\varepsilon}$-(choloyl))$Arg^{34}$-GLP-1(7-39);

$Arg^{26,34}Lys^{36}(N^{\varepsilon}$-(choloyl))-GLP-1(7-39);

$Gly^{8}Arg^{26,34}Lys^{36}(N^{\varepsilon}$-(choloyl))-GLP-1(7-39);

$Lys^{26}(N^{\varepsilon}$-(lithocholoyl))-GLP-1(7-39);

$Lys^{34}(N^{\varepsilon}$-(lithocholoyl))-GLP-1(7-39);

$Lys^{26,34}$-bis(N^{ε}-(lithocholoyl))-GLP-1(7-39);

$Gly^{8}Lys^{26}(N^{\varepsilon}$-(lithocholoyl))-GLP-1(7-39);

$Gly^{8}Lys^{34}(N^{\varepsilon}$-(lithocholoyl))-GLP-1(7-39);

$Gly^{8}Lys^{26,34}$-bis(N^{ε}-(lithocholoyl))-GLP-1(7-39);

$Arg^{26}Lys^{34}(N^{\varepsilon}$-(lithocholoyl))-GLP-1(7-39);

$Gly^{8}Arg^{26}Lys^{34}(N^{\varepsilon}$-(choloyl))-GLP-1(7-40);

$Lys^{26}(N^{\varepsilon}$-(choloyl))Arg^{34}-GLP-1(7-40);

$Gly^{8}Lys^{26}(N^{\varepsilon}$-(cholоyl))$Arg^{34}$-GLP-1(7-40);

$Arg^{26,34}Lys^{36}(N^{\varepsilon}$-(cholоyl))-GLP-1(7-40);

$Gly^{8}Arg^{26,34}Lys^{36}(N^{\varepsilon}$-(cholоyl))-GLP-1(7-40);

$Lys^{26}(N^{\varepsilon}$-(lithocholoyl))-GLP-1(7-40);

$Lys^{34}(N^{\varepsilon}$-(lithocholoyl))-GLP-1(7-40);

$Lys^{26,34}$-bis(N^{ε}-(lithocholoyl))-GLP-1(7-40);

$Gly^{8}Lys^{26}(N^{\varepsilon}$-(lithocholoyl))-GLP-1(7-40);

$Gly^{8}Lys^{34}(N^{\varepsilon}$-(lithocholoyl))-GLP-1(7-40);

$Gly^{8}Lys^{26,34}$-bis(N^{ε}-(lithocholoyl))-GLP-1(7-40);

$Arg^{26}Lys^{34}(N^{\varepsilon}$-(lithocholoyl))-GLP-1(7-37);

$Lys^{26}(N^{\varepsilon}$-(lithocholoyl))-GLP-1(7-36);

$Lys^{34}(N^{\varepsilon}$-(lithocholoyl))-GLP-1(7-36);

$Lys^{26,34}$-bis(N^{ε}-(lithocholoyl))-GLP-1(7-36);

$Gly^{8}Lys^{26}(N^{\varepsilon}$-(lithocholoyl))-GLP-1(7-36);

$Gly^{8}Lys^{34}(N^{\varepsilon}$-(lithocholoyl))-GLP-1(7-36);

$Gly^{8}Lys^{26,34}$-bis(N^{ε}-(lithocholoyl))-GLP-1(7-36);

$Arg^{26}Lys^{34}(N^{\varepsilon}$-(lithocholoyl))-GLP-1(7-36);

$Lys^{26}(N^{\varepsilon}$-(lithocholoyl))-GLP-1(7-35);

$Lys^{34}(N^{\varepsilon}$-(lithocholoyl))-GLP-1(7-35);

$Lys^{26,34}$-bis(N^{ε}-(lithocholoyl))-GLP-1(7-35);

$Gly^{8}Lys^{26}(N^{\varepsilon}$-(lithocholoyl))-GLP-1(7-35);

$Gly^{8}Lys^{34}(N^{\varepsilon}$-(lithocholoyl))-GLP-1(7-35);

$Gly^{8}Lys^{26,34}$-bis(N^{ε}-(lithocholoyl))-GLP-1(7-35);

$Arg^{26}Lys^{34}(N^{\varepsilon}$-(lithocholoyl))-GLP-1(7-35);

$Lys^{26}(N^{\varepsilon}$-(lithocholoyl))-GLP-1(7-36)amide;

$Lys^{34}(N^{\varepsilon}$-(lithocholoyl))-GLP-1(7-36)amide;

$Lys^{26,34}$-bis(N^{ε}-(lithocholoyl))-GLP-1(7-36)amide;

$Gly^{8}Lys^{26}(N^{\varepsilon}$-(lithocholoyl))-GLP-1(7-36)amide;

$Gly^{8}Lys^{34}(N^{\varepsilon}$-(lithocholoyl))-GLP-1(7-36)amide;

$Gly^{8}Lys^{26,34}$-bis(N^{ε}-(lithocholoyl))-GLP-1(7-36)amide;

$Arg^{26}Lys^{34}(N^{\varepsilon}$-(lithocholoyl))-GLP-1(7-36)amide;

$Gly^{8}Arg^{26}Lys^{34}(N^{\varepsilon}$-(lithocholoyl))-GLP-1(7-37);

$Lys^{26}(N^{\varepsilon}$-(lithocholoyl))Arg^{34}-GLP-1(7-37);

$Gly^{8}Lys^{26}(N^{\varepsilon}$-(lithocholoyl))$Arg^{34}$-GLP-1(7-37);

$Arg^{26,34}Lys^{36}(N^{\varepsilon}$-(lithocholoyl))-GLP-1(7-37);

$Arg^{26,34}Lys^{38}(N^{\varepsilon}$-(lithocholoyl))-GLP-1(7-37);

$Gly^{8}Arg^{26,34}Lys^{36}(N^{\varepsilon}$-(lithocholoyl))-GLP-1(7-37);

$Gly^{8}Arg^{26}Lys^{34}(N^{\varepsilon}$-(lithocholoyl))-GLP-1(7-38);

$Lys^{26}(N^{\varepsilon}$-(lithocholoyl))Arg^{34}-GLP-1(7-38);

$Gly^{8}Lys^{26}(N^{\varepsilon}$-(lithocholoyl))$Arg^{34}$-GLP-1(7-38);

$Arg^{26,34}Lys^{36}(N^{\varepsilon}$-(lithocholoyl))-GLP-1(7-38);

$Arg^{26,34}Lys^{38}(N^{\varepsilon}$-(lithocholoyl))-GLP-1(7-38);

$Gly^{8}Arg^{26,34}Lys^{36}(N^{\varepsilon}$-(lithocholoyl))-GLP-1(7-38);

$Gly^{8}Arg^{26}Lys^{34}(N^{\varepsilon}$-(lithocholoyl))-GLP-1(7-39);

$Lys^{26}(N^{\varepsilon}$-(lithocholoyl))Arg^{34}-GLP-1(7-39);

$Gly^{8}Lys^{26}(N^{\varepsilon}$-(lithocholoyl))$Arg^{34}$-GLP-1(7-39);

$Arg^{26,34}Lys^{36}(N^{\varepsilon}$-(lithocholoyl))-GLP-1(7-39);

$Gly^{8}Arg^{26,34}Lys^{36}(N^{\varepsilon}$-(lithocholoyl))-GLP-1(7-39);

$Gly^{8}Arg^{26}Lys^{34}(N^{\varepsilon}$-(lithocholoyl))-GLP-1(7-40);

$Lys^{26}(N^{\varepsilon}$-(lithocholoyl))Arg^{34}-GLP-1(7-40);

$Gly^{8}Lys^{26}(N^{\varepsilon}$-(lithocholoyl))$Arg^{34}$-GLP-1(7-40);

$Arg^{26,34}Lys^{36}(N^{\varepsilon}$-(lithocholoyl))-GLP-1(7-40) and

$Gly^{8}Arg^{26,34}Lys^{36}(N^{\varepsilon}$-(lithocholoyl))-GLP-1(7-40).

2. A derivative of an analog of GLP-1(7-36), GLP-1(7-37), GLP-1(7-38), or GLP-1(7-39), comprising one or more of the following substitutions:

Ala at position 8 is substituted with Gly, Ser, Thr, Leu, Ile, Val, Glu, Asp, or Lys,

Glu at position 9 is substituted with Asp or Lys,

Thr at position 11 is substituted with Ala, Gly, Ser, Leu, Ile, Val, Glu, Asp, or Lys,

Ser at position 14 is substituted with Ser, Ala, Gly, Thr, Leu, Ile, Val, Glu, Asp, or Lys,

Val at position 16 is substituted with Val, Ala, Gly, Ser, Thr, Leu, Ile, Tyr, Glu, Asp, or Lys,

Ser at position 17 is substituted with Ser, Ala, Gly, Thr, Leu, Ile, Val, Glu, Asp, or Lys,

Ser at position 18 is substituted with Ser, Ala, Gly, Thr, Leu, Ile, Val, Glu, Asp, or Lys,

Tyr at position 19 is substituted with Tyr, Phe, Trp, Glu, Asp, or Lys,

Leu at position 20 is substituted with Leu, Ala, Gly, Ser, Thr, Leu, Ile, Val, Glu, Asp, or Lys,

Glu at position 21 is substituted with Glu, Asp, or Lys,

Gly at position 22 is substituted with Gly, Ala, Ser, Thr, Leu, Ile, Val, Glu, Asp, or Lys,

Gln at position 23 is substituted with Gln, Asn, Arg, Glu, Asp, or Lys,

Ala at position 24 is substituted with Ala, Gly, Ser, Thr, Leu, Ile, Val, Arg, Glu, Asp, or Lys,

Ala at position 25 is substituted with Ala, Gly, Ser, Thr, Leu, Ile, Val, Glu, Asp, or Lys,

Lys at position 26 is substituted with Arg, Gln, Glu, Asp, or His,

Glu at position 27 is substituted with Asp or Lys,

Ala at position 30 is substituted with Gly, Ser, Thr, Leu, Ile, Val, Glu, Asp, or Lys,

Trp at position 31 is substituted with Phe, Tyr, Glu, Asp, or Lys,

Leu at position 32 is substituted with Gly, Ala, Ser, Thr, Ile, Val, Glu, Asp, or Lys,

Val at position 33 is substituted with Gly, Ala, Ser, Thr, Leu, Ile, Glu, Asp, or Lys,

Lys at position 34 is substituted with Arg, Glu, Asp, or His,

Gly at position 35 is substituted with Ala, Ser, Thr, Leu, Ile, Val, Glu, Asp, or Lys,

Arg at position 36 is substituted with Lys, Glu, Asp, or His,

Gly at position 37 is substituted with Ala, Ser, Thr, Leu, Ile, Val, Glu, Asp, or Lys,

Arg at position 38 is substituted with Lys, Glu, Asp, or His, and

Arg at position 39 is substituted with Lys, Glu, Asp, or His, or

(a) a C-1-6-ester thereof, (b) amide, C-1-6-alkylamide, or C-1-6-dialkylamide thereof and/or (c) a pharmaceutically acceptable salt thereof,

provided that

A. the derivative of the GLP-1 analog contains only one or two Lys,

B. the ε-amino group of one or both Lys is substituted with a lipophilic substituent optionally via a spacer,

C. the total number of different amino acids between the derivative of the GLP-1 analog and the corresponding native form of GLP-1 does not exceed six

D. the derivative of an analog of GLP-1(7-36), GLP-1(7-37), GLP-1(7-38), or GLP-1(7-39), is not selected from:

$Lys^{26}(N^{\varepsilon}$-tetradecanoyl)-GLP-1(7-37),

$Lys^{34}(N^{\varepsilon}$-tetradecanoyl)-GLP-1(7-37),

$Lys^{26,34}$-bis(N^{ε}-tetradecanoyl)-GLP-1(7-37),

$Lys^{26}(N^{\varepsilon}$-tetradecanoyl)Arg^{34}-GLP-1(7-37),

$Gly^{8}Arg^{26,34}Lys^{36}(N^{\varepsilon}$-tetradecanoyl)-GLP-1(7-37),

$Arg^{26,34}Lys^{36}$ (N^{ε}-tetradecanoyl)-GLP-1(7-37)-OH,

$Lys^{26,34}$bis(N^{ε}-(ω–carboxynonadecanoyl))-GLP-1(7-37)-OH,

$Arg^{26,34}Lys^{36}$(N^{ε}-(ω-carboxynonadecanoyl))-GLP-1(7-36)-OH,

$Arg^{26,34}Lys^{38}$(N^{ε}-(ω–carboxynonadecanoyl))-GLP-1(7-38)-OH,

$Arg^{34}Lys^{26}$ (N^{ε}-(ω–carboxynonadecanoyl))-GLP-1(7-37)-OH,

$Arg^{34}Lys^{26}$ (N^{ε}-(ω–carboxyheptadecanoyl))-GLP-1(7-37)-OH,

$Arg^{26,34}Lys^{36}$ (N^{ε}-(ω–carboxyheptadecanoyl))-GLP-1(7-37)-OH,

$Arg^{26,34}Lys^{38}$(N^{ε}-(ω–carboxyheptadecanoyl))-GLP-1(7-38)-OH,

$Arg^{26,34}Lys^{36}$ (N^{ε}-(ω–carboxyheptadecanoyl))-GLP-1(7-36)-OH,

$Arg^{26,34}Lys^{36}$ (N^{ε}-(ω–carboxyundecanoyl))-GLP-1(7-37)-OH,

$Arg^{26,34}Lys^{38}$(N^{ε}-(ω–carboxyundecanoyl))-GLP-1(7-38)-OH,

$Lys^{26,34}$bis(N^{ε}-(ω–carboxyundecanoyl))-GLP-1(7-37)-OH,

$Arg^{26,34}Lys^{36}$ (N^{ε}-(ω–carboxyundecanoyl))-GLP-1(7-36)-OH,

$Arg^{34}Lys^{26}$ (N^{ε}-(ω–carboxyundecanoyl))-GLP-1(7-37)-OH,

$Arg^{34}Lys^{26}$ (N^{ε}-(ω–carboxyheptanoyl))-GLP-1(7-37)-OH,

$Arg^{26,34}Lys^{38}$(N^{ε}-(ω–carboxyheptanoyl))-GLP-1(7-38)-OH,

$Arg^{26,34}Lys^{36}$ (N^{ε}-(ω–carboxyheptanoyl))-GLP-1(7-37)-OH,

$Arg^{26,34}Lys^{36}$ (N^{ε}-(ω–carboxyheptanoyl))-GLP-1(7-36)-OH,

$Lys^{26,34}$bis(N^{ε}-(ω–carboxyheptanoyl))-GLP-1(7-37)-OH,

$Arg^{34}Lys^{26}$ (N^{ε}-(ω–carboxypentadecanoyl))-GLP-1(7-37)-OH,

$Arg^{26,34}Lys^{36}$ (N^{ε}-(ω–carboxyheptanoyl))-GLP-1(7-36)-OH,

$Arg^{34}Lys^{26}$(N^{ε}-lithocholyl)-GLP-1(7-37)-OH,

$Glu^{22,23,30}Arg^{26,34}Lys^{38}$($N^{\varepsilon}$-(γ-glutamyl($N^{\alpha}$-tetradecanoyl)))-GLP-1(7-38)-OH,

$Glu^{23,26}Arg^{34}Lys^{38}$($N^{\varepsilon}$-(γ-glutamyl($N^{\alpha}$-tetradecanoyl)))-GLP-1(7-38)-OH,

$Lys^{26,34}$-bis(N^{ε}-(ω-carboxytridecanoyl))-GLP-1(7-37)-OH,

$Lys^{26,34}$-bis(N^{ε}-(γ-glutamyl(N^{α}-tetradecanoyl)))-GLP-1(7-37)-OH,

$Arg^{26,34}Lys^{38}$(N^{ε}-(ω-carboxypentadecanoyl))-GLP-1(7-38)-OH,

$Lys^{26,34}$-bis(N^{ε}-(γ-glutamyl(N^{α}-hexadecanoyl)))-GLP-1(7-37)-OH,

$Arg^{34}Lys^{26}$(N^{ε}-(γ-glutamyl(N^{α}-hexadecanoyl)))-GLP-1(7-37)-OH,

$Arg^{26,34}Lys^{38}$(N^{ε}-(γ-glutamyl(N^{α}-tetradecanoyl)))-GLP-1(7-38)-OH,

$Arg^{26,34}Lys^{38}$(N^{ε}-(ω-carboxypentadecanoyl))-GLP-1(7-38)-OH,

$Arg^{26,34}Lys^{38}$(N^{ε}-(γ-glutamyl(N^{α}-hexadecanoyl)))-GLP-1(7-38)-OH,

$Arg^{18,23,26,30,34}Lys^{38}$($N^{\varepsilon}$-hexadecanoyl)-GLP-1(7-38)-OH,

$Arg^{26,34}Lys^{38}$(N^{ε}-(ω-carboxytridecanoyl))-GLP-1(7-38)-OH,

$Arg^{34}Lys^{26}(N^{\varepsilon}$-($\gamma$-glutamyl($N^{\alpha}$-tetradecanoyl)))-GLP-1(7-37)-OH,

$Arg^{26,34}Lys^{38}(N^{\varepsilon}$-($\gamma$-glutamyl($N^{\alpha}$-octadecanoyl)))-GLP-1(7-38)-OH,

$Lys^{26}(N^{\varepsilon}$-tetradecanoyl)-GLP-1(7-37);

$Lys^{34}(N^{\varepsilon}$-tetradecanoyl)-GLP-1(7-37);

$Lys^{26,34}$-bis(N^{ε}-tetradecanoyl)-GLP-1(7-37);

$Gly^{8}Lys^{26}(N^{\varepsilon}$-tetradecanoyl)-GLP-1(7-37);

$Gly^{8}Lys^{34}(N^{\varepsilon}$-tetradecanoyl)-GLP-1(7-37);

$Gly^{8}Lys^{26,34}$-bis(N^{ε}-tetradecanoyl)-GLP-1(7-37);

$Arg^{26}Lys^{34}(N^{\varepsilon}$-tetradecanoyl)-GLP-1(7-37);

$Lys^{26}(N^{\varepsilon}$-tetradecanoyl)-GLP-1(7-38);

$Lys^{34}(N^{\varepsilon}$-tetradecanoyl)-GLP-1(7-38);

$Lys^{26,34}$-bis(N^{ε}-tetradecanoyl)-GLP-1(7-38);

$Gly^{8}Lys^{26}(N^{\varepsilon}$-tetradecanoyl)-GLP-1(7-38);

$Gly^{8}Lys^{34}(N^{\varepsilon}$-tetradecanoyl)-GLP-1(7-38);

$Gly^{8}Lys^{26,34}$-bis(N^{ε}-tetradecanoyl)-GLP-1(7-38);

$Arg^{26}Lys^{34}(N^{\varepsilon}$-tetradecanoyl)-GLP-1(7-38);

$Lys^{26}(N^{\varepsilon}$-tetradecanoyl)-GLP-1(7-39);

$Lys^{34}(N^{\varepsilon}$-tetradecanoyl)-GLP-1(7-39);

$Lys^{26,34}$-bis(N^{ε}-tetradecanoyl)-GLP-1(7-39);

$Gly^{8}Lys^{26}(N^{\varepsilon}$-tetradecanoyl)-GLP-1(7-39);

$Gly^{8}Lys^{34}(N^{\varepsilon}$-tetradecanoyl)-GLP-1(7-39);

$Gly^{8}Lys^{26,34}$-bis(N^{ε}-tetradecanoyl)-GLP-1(7-39);

$Arg^{26}Lys^{34}(N^{\varepsilon}$-tetradecanoyl)-GLP-1(7-39);

$Lys^{26}(N^{\varepsilon}$-tetradecanoyl)-GLP-1(7-36);

$Lys^{34}(N^{\varepsilon}$-tetradecanoyl)-GLP-1(7-36);

$Lys^{26,34}$-bis(N^{ε}-tetradecanoyl)-GLP-1(7-36);

$Gly^{8}Lys^{26}(N^{\varepsilon}$-tetradecanoyl)-GLP-1(7-36);

$Gly^{8}Lys^{34}(N^{\varepsilon}$-tetradecanoyl)-GLP-1(7-36);

$Gly^{8}Lys^{26,34}$-bis(N^{ε}-tetradecanoyl)-GLP-1(7-36);

$Arg^{26}Lys^{34}(N^{\varepsilon}$-tetradecanoyl)-GLP-1(7-36);

$Lys^{26}(N^{\varepsilon}$-tetradecanoyl)-GLP-1(7-36)amide;

$Lys^{34}(N^{\varepsilon}$-tetradecanoyl)-GLP-1(7-36)amide;

$Lys^{26,34}$-bis(N^{ε}-tetradecanoyl)-GLP-1(7-36)amide;

$Gly^{8}Lys^{26}$(N^{ε}-tetradecanoyl)-GLP-1(7-36)amide;

$Gly^{8}Lys^{34}$(N^{ε}-tetradecanoyl)-GLP-1(7-36)amide;

$Gly^{8}Lys^{26,34}$-bis(N^{ε}-tetradecanoyl)-GLP-1(7-36)amide;

$Arg^{26}Lys^{34}$(N^{ε}-tetradecanoyl)-GLP-1(7-36)amide;

$Gly^{8}Arg^{26}Lys^{34}$(N^{ε}-tetradecanoyl)-GLP-1(7-37);

Lys^{26}(N^{ε}-tetradecanoyl)Arg^{34}-GLP-1(7-37);

$Gly^{8}Lys^{26}$(N^{ε}-tetradecanoyl)Arg^{34}-GLP-1(7-37);

$Arg^{26,34}Lys^{36}$(N^{ε}-tetradecanoyl)-GLP-1(7-37);

$Gly^{8}Arg^{26,34}Lys^{36}$($N^{\varepsilon}$-tetradecanoyl)-GLP-1(7-37);

$Gly^{8}Arg^{26}Lys^{34}$(N^{ε}-tetradecanoyl)-GLP-1(7-38);

Lys^{26}(N^{ε}-tetradecanoyl)Arg^{34}-GLP-1(7-38);

$Gly^{8}Lys^{26}$(N^{ε}-tetradecanoyl)Arg^{34}-GLP-1(7-38);

$Arg^{26,34}Lys^{36}$(N^{ε}-tetradecanoyl)-GLP-1(7-38);

$Arg^{26,34}Lys^{38}$(N^{ε}-tetradecanoyl)-GLP-1(7-38);

$Gly^{8}Arg^{26,34}Lys^{36}$($N^{\varepsilon}$-tetradecanoyl)-GLP-1(7-38);

$Gly^{8}Arg^{26}Lys^{34}$(N^{ε}-tetradecanoyl)-GLP-1(7-39);

Lys^{26}(N^{ε}-tetradecanoyl)Arg^{34}-GLP-1(7-39);

$Gly^{8}Lys^{26}$(N^{ε}-tetradecanoyl)Arg^{34}-GLP-1(7-39);

$Arg^{26,34}Lys^{36}$(N^{ε}-tetradecanoyl)-GLP-1(7-39);

$Gly^{8}Arg^{26,34}Lys^{36}$($N^{\varepsilon}$-tetradecanoyl)-GLP-1(7-39);

Lys^{26}(N^{ε}-(ω-carboxynonadecanoyl))-GLP-1(7-37);

Lys^{34}(N^{ε}-(ω-carboxynonadecanoyl))-GLP-1(7-37);

$Lys^{26,34}$-bis(N^{ε}-(ω-carboxynonadecanoyl))-GLP-1(7-37);

$Gly^{8}Lys^{26}$(N^{ε}-(ω-carboxynonadecanoyl))-GLP-1(7-37);

$Gly^{8}Lys^{34}$(N^{ε}-(ω-carboxynonadecanoyl))-GLP-1(7-37);

$Gly^{8}Lys^{26,34}$-bis(N^{ε}-(ω-carboxynonadecanoyl))-GLP-1(7-37);

Lys^{26}(N^{ε}-(ω-carboxynonadecanoyl))-GLP-1(7-38);

Lys^{34}(N^{ε}-(ω-carboxynonadecanoyl))-GLP-1(7-38);

$Lys^{26,34}$-bis(N^{ε}-(ω-carboxynonadecanoyl))-GLP-1(7-38);

$Gly^{8}Lys^{26}$(N^{ε}-(ω-carboxynonadecanoyl))-GLP-1(7-38);

$Gly^{8}Lys^{34}$(N^{ε}-(ω-carboxynonadecanoyl))-GLP-1(7-38);

$Gly^{8}Lys^{26,34}$-bis(N^{ε}-(ω-carboxynonadecanoyl))-GLP-1(7-38);

$Lys^{26}(N^{\varepsilon}$-(ω-carboxynonadecanoyl))-GLP-1(7-39);

$Lys^{34}(N^{\varepsilon}$-(ω-carboxynonadecanoyl))-GLP-1(7-39);

$Lys^{26,34}$-bis(N^{ε}-(ω-carboxynonadecanoyl))-GLP-1(7-39);

$Gly^{8}Lys^{26}(N^{\varepsilon}$-(ω-carboxynonadecanoyl))-GLP-1(7-39);

$Gly^{8}Lys^{34}(N^{\varepsilon}$-(ω-carboxynonadecanoyl))-GLP-1(7-39);

$Gly^{8}Lys^{26,34}$-bis(N^{ε}-(ω-carboxynonadecanoyl))-GLP-1(7-39);

$Lys^{26}(N^{\varepsilon}$-(ω-carboxynonadecanoyl))-GLP-1(7-36);

$Lys^{34}(N^{\varepsilon}$-(ω–carboxynonadecanoyl))-GLP-1(7-36);

$Lys^{26,34}$-bis(N^{ε}-(ω-carboxynonadecanoyl))-GLP-1(7-36);

$Gly^{8}Lys^{26}(N^{\varepsilon}$-(ω-carboxynonadecanoyl))-GLP-1(7-36);

$Gly^{8}Lys^{34}(N^{\varepsilon}$-(ω-carboxynonadecanoyl))-GLP-1(7-36);

$Gly^{8}Lys^{26,34}$-bis(N^{ε}-(ω-carboxynonadecanoyl))-GLP-1(7-36);

$Lys^{26}(N^{\varepsilon}$-(ω-carboxynonadecanoyl))-GLP-1(7-36)amide;

$Lys^{34}(N^{\varepsilon}$-(ω-carboxynonadecanoyl))-GLP-1(7-36)amide;

$Lys^{26,34}$-bis(N^{ε}-(ω-carboxynonadecanoyl))-GLP-1(7-36)amide;

$Gly^{8}Lys^{26}(N^{\varepsilon}$-(ω-carboxynonadecanoyl))-GLP-1(7-36)amide;

$Gly^{8}Lys^{34}(N^{\varepsilon}$-(ω-carboxynonadecanoyl))-GLP-1(7-36)amide;

$Gly^{8}Lys^{26,34}$-bis(N^{ε}-(ω-carboxynonadecanoyl))-GLP-1(7-36)amide;

$Arg^{26}Lys^{34}(N^{\varepsilon}$-(ω–carboxynonadecanoyl))-GLP-1(7-37);

$Gly^{8}Arg^{26}Lys^{34}(N^{\varepsilon}$-(ω–carboxynonadecanoyl))-GLP-1(7-37);

$Lys^{26}(N^{\varepsilon}$-(ω–carboxynonadecanoyl))Arg^{34}-GLP-1(7-37);

$Gly^{8}Lys^{26}(N^{\varepsilon}$-(ω–carboxynonadecanoyl))Arg^{34}-GLP-1(7-37);

$Arg^{26,34}Lys^{36}(N^{\varepsilon}$-(ω–carboxynonadecanoyl))-GLP-1(7-37);

$Gly^{8}Arg^{26,34}Lys^{36}(N^{\varepsilon}$-(ω–carboxynonadecanoyl))-GLP-1(7-37);

$Arg^{26}Lys^{34}(N^{\varepsilon}$-(ω–carboxynonadecanoyl))-GLP-1(7-38);

$Gly^{8}Arg^{26}Lys^{34}(N^{\varepsilon}$-(ω–carboxynonadecanoyl))-GLP-1(7-38);

$Lys^{26}(N^{\varepsilon}$-(ω–carboxynonadecanoyl))Arg^{34}-GLP-1(7-38);

$Gly^{8}Lys^{26}(N^{\varepsilon}$-(ω–carboxynonadecanoyl))Arg^{34}-GLP-1(7-38);

$Arg^{26,34}Lys^{36}(N^{\varepsilon}$-(ω–carboxynonadecanoyl))-GLP-1(7-38);

$Arg^{26,34}Lys^{38}(N^{\varepsilon}$-(ω–carboxynonadecanoyl))-GLP-1(7-38);

$Gly^{8}Arg^{26,34}Lys^{36}(N^{\varepsilon}$-(ω–carboxynonadecanoyl))-GLP-1(7-38);

$Arg^{26}Lys^{34}(N^{\varepsilon}$-(ω–carboxynonadecanoyl))-GLP-1(7-39);

$Gly^{8}Arg^{26}Lys^{34}(N^{\varepsilon}$-(ω–carboxynonadecanoyl))-GLP-1(7-39);

$Lys^{26}(N^{\varepsilon}$-(ω–carboxynonadecanoyl))Arg^{34}-GLP-1(7-39);

$Gly^{8}Lys^{26}(N^{\varepsilon}$-(ω–carboxynonadecanoyl))Arg^{34}-GLP-1(7-39);

$Arg^{26,34}Lys^{36}(N^{\varepsilon}$-(ω–carboxynonadecanoyl))-GLP-1(7-39);

$Gly^{8}Arg^{26,34}Lys^{36}(N^{\varepsilon}$-(ω–carboxynonadecanoyl))-GLP-1(7-39);

$Lys^{26}(N^{\varepsilon}$-(7-deoxycholoyl))-GLP-1(7-37);

$Lys^{34}(N^{\varepsilon}$-(7-deoxycholoyl))-GLP-1(7-37);

$Lys^{26,34}$-bis(N^{ε}-(7-deoxycholoyl))-GLP-1(7-37);

$Gly^{8}Lys^{26}(N^{\varepsilon}$-(7-deoxycholoyl))-GLP-1(7-37);

$Gly^{8}Lys^{34}(N^{\varepsilon}$-(7-deoxycholoyl))-GLP-1(7-37);

$Gly^{8}Lys^{26,34}$-bis(N^{ε}-(7-deoxycholoyl))-GLP-1(7-37);

$Arg^{26}Lys^{34}(N^{\varepsilon}$-(7-deoxycholoyl))-GLP-1(7-37);

$Lys^{26}(N^{\varepsilon}$-(7-deoxycholoyl))-GLP-1(7-38);

$Lys^{34}(N^{\varepsilon}$-(7-deoxycholoyl))-GLP-1(7-38);

$Lys^{26,34}$-bis(N^{ε}-(7-deoxycholoyl))-GLP-1(7-38);

$Gly^{8}Lys^{26}(N^{\varepsilon}$-(7-deoxycholoyl))-GLP-1(7-38);

$Gly^{8}Lys^{34}(N^{\varepsilon}$-(7-deoxycholoyl))-GLP-1(7-38);

$Gly^{8}Lys^{26,34}$-bis(N^{ε}-(7-deoxycholoyl))-GLP-1(7-38);

$Arg^{26}Lys^{34}(N^{\varepsilon}$-(7-deoxycholoyl))-GLP-1(7-38);

$Lys^{26}(N^{\varepsilon}$-(7-deoxycholoyl))-GLP-1(7-39);

$Lys^{34}(N^{\varepsilon}$-(7-deoxycholoyl))-GLP-1(7-39);

$Lys^{26,34}$-bis(N^{ε}-(7-deoxycholoyl))-GLP-1(7-39);

$Gly^{8}Lys^{26}(N^{\varepsilon}$-(7-deoxycholoyl))-GLP-1(7-39);

$Gly^{8}Lys^{34}(N^{\varepsilon}$-(7-deoxycholoyl))-GLP-1(7-39);

$Gly^{8}Lys^{26,34}$-bis(N^{ε}-(7-deoxycholoyl))-GLP-1(7-39);

$Arg^{26}Lys^{34}(N^{\varepsilon}$-(7-deoxycholoyl))-GLP-1(7-39);

$Lys^{26}(N^{\varepsilon}$-(7-deoxycholoyl))-GLP-1(7-36);

$Lys^{34}(N^{\varepsilon}$-(7-deoxycholoyl))-GLP-1(7-36);

$Lys^{26,34}$-bis(N^{ε}-(7-deoxycholoyl))-GLP-1(7-36);

$Gly^{8}Lys^{26}(N^{\varepsilon}$-(7-deoxycholoyl))-GLP-1(7-36);

$Gly^{8}Lys^{34}(N^{\varepsilon}$-(7-deoxycholoyl))-GLP-1(7-36);

$Gly^{8}Lys^{26,34}$-bis(N^{ε}-(7-deoxycholoyl))-GLP-1(7-36);

$Arg^{26}Lys^{34}(N^{\varepsilon}$-(7-deoxycholoyl))-GLP-1(7-36);

$Lys^{26}(N^{\varepsilon}$-(7-deoxycholoyl))-GLP-1(7-36)amide;

$Lys^{34}(N^{\varepsilon}$-(7-deoxycholoyl))-GLP-1(7-36)amide;

$Lys^{26,34}$-bis(N^{ε}-(7-deoxycholoyl))-GLP-1(7-36)amide;

$Gly^{8}Lys^{26}(N^{\varepsilon}$-(7-deoxycholoyl))-GLP-1(7-36)amide;

$Gly^{8}Lys^{34}(N^{\varepsilon}$-(7-deoxycholoyl))-GLP-1(7-36)amide;

$Gly^{8}Lys^{26,34}$-bis(N^{ε}-(7-deoxycholoyl))-GLP-1(7-36)amide;

$Arg^{26}Lys^{34}(N^{\varepsilon}$-(7-deoxycholoyl))-GLP-1(7-36)amide;

$Gly^{8}Arg^{26}Lys^{34}(N^{\varepsilon}$-(7-deoxycholoyl))-GLP-1(7-37);

$Lys^{26}(N^{\varepsilon}$-(7-deoxycholoyl))Arg^{34}-GLP-1(7-37);

$Gly^{8}Lys^{26}(N^{\varepsilon}$-(7-deoxycholoyl))$Arg^{34}$-GLP-1(7-37);

$Arg^{26,34}Lys^{36}(N^{\varepsilon}$-(7-deoxycholoyl))-GLP-1(7-37);

$Gly^{8}Arg^{26,34}Lys^{36}(N^{\varepsilon}$-(7-deoxycholoyl))-GLP-1(7-37);

$Lys^{26}(N^{\varepsilon}$-(choloyl))-GLP-1(7-37);

$Lys^{34}(N^{\varepsilon}$-(choloyl))-GLP-1(7-37);

$Lys^{26,34}$-bis(N^{ε}-(choloyl))-GLP-1(7-37);

$Gly^{8}Lys^{26}(N^{\varepsilon}$-(choloyl))-GLP-1(7-37);

$Gly^{8}Lys^{34}(N^{\varepsilon}$-(choloyl))-GLP-1(7-37);

$Gly^{8}Lys^{26,34}$-bis(N^{ε}-(choloyl))-GLP-1(7-37);

$Arg^{26}Lys^{34}(N^{\varepsilon}$-(choloyl))-GLP-1(7-37);

$Gly^{8}Arg^{26}Lys^{34}(N^{\varepsilon}$-(7-deoxycholoyl))-GLP-1(7-38);

$Lys^{26}(N^{\varepsilon}$-(7-deoxycholoyl))Arg^{34}-GLP-1(7-38);

$Gly^{8}Lys^{26}(N^{\varepsilon}$-(7-deoxycholoyl))$Arg^{34}$-GLP-1(7-38);

$Arg^{26,34}Lys^{36}(N^{\varepsilon}$-(7-deoxycholoyl))-GLP-1(7-38);

$Arg^{26,34}Lys^{38}(N^{\varepsilon}$-(7-deoxycholoyl))-GLP-1(7-38);

$Gly^{8}Arg^{26,34}Lys^{36}(N^{\varepsilon}$-(7-deoxycholoyl))-GLP-1(7-38);

$Lys^{26}(N^{\varepsilon}$-(choloyl))-GLP-1(7-38);

$Lys^{34}(N^{\varepsilon}$-(choloyl))-GLP-1(7-38);

$Lys^{26,34}$-bis(N^{ε}-(choloyl))-GLP-1(7-38);

$Gly^{8}Lys^{26}(N^{\varepsilon}$-(choloyl))-GLP-1(7-38);

$Gly^{8}Lys^{34}(N^{\varepsilon}$-(choloyl))-GLP-1(7-38);

$Gly^{8}Lys^{26,34}$-bis(N^{ε}-(choloyl))-GLP-1(7-38);

$Arg^{26}Lys^{34}(N^{\varepsilon}$-(choloyl))-GLP-1(7-38);

$Gly^{8}Arg^{26}Lys^{34}(N^{\varepsilon}$-(7-deoxycholoyl))-GLP-1(7-39);

$Lys^{26}(N^{\varepsilon}$-(7-deoxycholoyl))Arg^{34}-GLP-1(7-39);

$Gly^{8}Lys^{26}(N^{\varepsilon}$-(7-deoxycholoyl))$Arg^{34}$-GLP-1(7-39);

$Arg^{26,34}Lys^{36}(N^{\varepsilon}$-(7-deoxycholoyl))-GLP-1(7-39);

$Gly^{8}Arg^{26,34}Lys^{36}(N^{\varepsilon}$-(7-deoxycholoyl))-GLP-1(7-39);

$Lys^{26}(N^{\varepsilon}$-(choloyl))-GLP-1(7-39);

$Lys^{34}(N^{\varepsilon}$-(choloyl))-GLP-1(7-39);

$Lys^{26,34}$-bis(N^{ε}-(choloyl))-GLP-1(7-39);

$Gly^{8}Lys^{26}(N^{\varepsilon}$-(choloyl))-GLP-1(7-39);

$Gly^{8}Lys^{34}(N^{\varepsilon}$-(choloyl))-GLP-1(7-39);

$Gly^{8}Lys^{26,34}$-bis(N^{ε}-(choloyl))-GLP-1(7-39);

$Arg^{26}Lys^{34}(N^{\varepsilon}$-(choloyl))-GLP-1(7-39);

$Lys^{26}(N^{\varepsilon}$-(choloyl))-GLP-1(7-36);

$Lys^{34}(N^{\varepsilon}$-(choloyl))-GLP-1(7-36);

$Lys^{26,34}$-bis(N^{ε}-(choloyl))-GLP-1(7-36);

$Gly^{8}Lys^{26}(N^{\varepsilon}$-(choloyl))-GLP-1(7-36);

$Gly^{8}Lys^{34}(N^{\varepsilon}$-(choloyl))-GLP-1(7-36);

$Gly^{8}Lys^{26,34}$-bis(N^{ε}-(choloyl))-GLP-1(7-36);

$Arg^{26}Lys^{34}(N^{\varepsilon}$-(choloyl))-GLP-1(7-36);

$Lys^{26}(N^{\varepsilon}$-(choloyl))-GLP-1(7-36)amide;

$Lys^{34}(N^{\varepsilon}$-(choloyl))-GLP-1(7-36)amide;

$Lys^{26,34}$-bis(N^{ε}-(choloyl))-GLP-1(7-36)amide;

$Gly^{8}Lys^{26}(N^{\varepsilon}$-(choloyl))-GLP-1(7-36)amide;

$Gly^{8}Lys^{34}(N^{\varepsilon}$-(choloyl))-GLP-1(7-36)amide;

$Gly^{8}Lys^{26,34}$-bis(N^{ε}-(choloyl))-GLP-1(7-36)amide;

$Arg^{26}Lys^{34}(N^{\varepsilon}$-(choloyl))-GLP-1(7-36)amide;

$Gly^{8}Arg^{26}Lys^{34}(N^{\varepsilon}$-(choloyl))-GLP-1(7-37);

Arg^{26},Lys^{34} (N^{ε}-(octanoyl)) GLP-1 (7-37)-OH;

$Lys^{26}(N^{\varepsilon}$-(choloyl))Arg^{34}-GLP-1(7-37);

$Gly^{8}Lys^{26}(N^{\varepsilon}$-(choloyl))$Arg^{34}$-GLP-1(7-37);

$Arg^{26,34}Lys^{36}(N^{\varepsilon}$-(choloyl))-GLP-1(7-37);

$Gly^{8}Arg^{26,34}Lys^{36}(N^{\varepsilon}$-(choloyl))-GLP-1(7-37);

$Lys^{26}(N^{\varepsilon}$-(lithocholoyl))-GLP-1(7-37);

$Lys^{34}(N^{\varepsilon}$-(lithocholoyl))-GLP-1(7-37);

$Lys^{26,34}$-bis(N^{ε}-(lithocholoyl))-GLP-1(7-37);

$Gly^{8}Lys^{26}(N^{\varepsilon}$-(lithocholoyl))-GLP-1(7-37);

$Gly^{8}Lys^{34}(N^{\varepsilon}$-(lithocholoyl))-GLP-1(7-37);

$Gly^{8}Lys^{26,34}$-bis(N^{ε}-(lithocholoyl))-GLP-1(7-37);

$Arg^{26}Lys^{34}(N^{\varepsilon}$-(lithocholoyl))-GLP-1(7-37);

$Gly^{8}Arg^{26}Lys^{34}(N^{\varepsilon}$-(choloyl))-GLP-1(7-38);

$Lys^{26}(N^{\varepsilon}$-(choloyl))Arg^{34}-GLP-1(7-38);

$Gly^{8}Lys^{26}(N^{\varepsilon}$-(choloyl))$Arg^{34}$-GLP-1(7-38);

$Arg^{26,34}Lys^{36}(N^{\varepsilon}$-(choloyl))-GLP-1(7-38);

$Arg^{26,34}Lys^{38}(N^{\varepsilon}$-(choloyl))-GLP-1(7-38);

$Gly^{8}Arg^{26,34}Lys^{36}(N^{\varepsilon}$-(choloyl))-GLP-1(7-38);

$Lys^{26}(N^{\varepsilon}$-(lithocholoyl))-GLP-1(7-38);

$Lys^{34}(N^{\varepsilon}$-(lithocholoyl))-GLP-1(7-38);

$Lys^{26,34}$-bis(N^{ε}-(lithocholoyl))-GLP-1(7-38);

$Gly^{8}Lys^{26}(N^{\varepsilon}$-(lithocholoyl))-GLP-1(7-38);

$Gly^{8}Lys^{34}(N^{\varepsilon}$-(lithocholoyl))-GLP-1(7-38);

$Gly^{8}Lys^{26,34}$-bis(N^{ε}-(lithocholoyl))-GLP-1(7-38);

$Arg^{26}Lys^{34}(N^{\varepsilon}$-(lithocholoyl))-GLP-1(7-38);

$Gly^{8}Arg^{26}Lys^{34}(N^{\varepsilon}$-(choloyl))-GLP-1(7-39);

$Lys^{26}(N^{\varepsilon}$-(choloyl))Arg^{34}-GLP-1(7-39);

$Gly^{8}Lys^{26}(N^{\varepsilon}$-(choloyl))$Arg^{34}$-GLP-1(7-39);

$Arg^{26,34}Lys^{36}(N^{\varepsilon}$-(choloyl))-GLP-1(7-39);

$Gly^{8}Arg^{26,34}Lys^{36}(N^{\varepsilon}$-(choloyl))-GLP-1(7-39);

$Lys^{26}(N^{\varepsilon}$-(lithocholoyl))-GLP-1(7-39);

$Lys^{34}(N^{\varepsilon}$-(lithocholoyl))-GLP-1(7-39);

$Lys^{26,34}$-bis(N^{ε}-(lithocholoyl))-GLP-1(7-39);

$Gly^{8}Lys^{26}(N^{\varepsilon}$-(lithocholoyl))-GLP-1(7-39);

$Gly^{8}Lys^{34}(N^{\varepsilon}$-(lithocholoyl))-GLP-1(7-39);

$Gly^{8}Lys^{26,34}$-bis(N^{ε}-(lithocholoyl))-GLP-1(7-39);

$Arg^{26}Lys^{34}(N^{\varepsilon}$-(lithocholoyl))-GLP-1(7-39);

$Arg^{26}Lys^{34}(N^{\varepsilon}$-(lithocholoyl))-GLP-1(7-37);

$Lys^{26}(N^{\varepsilon}$-(lithocholoyl))-GLP-1(7-36);

$Lys^{34}(N^{\varepsilon}$-(lithocholoyl))-GLP-1(7-36);

$Lys^{26,34}$-bis(N^{ε}-(lithocholoyl))-GLP-1(7-36);

$Gly^{8}Lys^{26}(N^{\varepsilon}$-(lithocholoyl))-GLP-1(7-36);

$Gly^{8}Lys^{34}(N^{\varepsilon}$-(lithocholoyl))-GLP-1(7-36);

$Gly^{8}Lys^{26,34}$-bis(N^{ε}-(lithocholoyl))-GLP-1(7-36);

$Arg^{26}Lys^{34}(N^{\varepsilon}$-(lithocholoyl))-GLP-1(7-36);

$Lys^{26}(N^{\varepsilon}$-(lithocholoyl))-GLP-1(7-36)amide;

$Lys^{34}(N^{\varepsilon}$-(lithocholoyl))-GLP-1(7-36)amide;

$Lys^{26,34}$-bis(N^{ε}-(lithocholoyl))-GLP-1(7-36)amide;

$Gly^{8}Lys^{26}(N^{\varepsilon}$-(lithocholoyl))-GLP-1(7-36)amide;

$Gly^{8}Lys^{34}(N^{\varepsilon}$-(lithocholoyl))-GLP-1(7-36)amide;

$Gly^{8}Lys^{26,34}$-bis(N^{ε}-(lithocholoyl))-GLP-1(7-36)amide;

$Arg^{26}Lys^{34}(N^{\varepsilon}$-(lithocholoyl))-GLP-1(7-36)amide;

$Gly^{8}Arg^{26}Lys^{34}(N^{\varepsilon}$-(lithocholoyl))-GLP-1(7-37);

$Lys^{26}(N^{\varepsilon}$-(lithocholoyl))Arg^{34}-GLP-1(7-37);

$Gly^{8}Lys^{26}(N^{\varepsilon}$-(lithocholoyl))$Arg^{34}$-GLP-1(7-37);

$Arg^{26,34}Lys^{36}(N^{\varepsilon}$-(lithocholoyl))-GLP-1(7-37);

$Arg^{26,34}Lys^{38}(N^{\varepsilon}$-(lithocholoyl))-GLP-1(7-37);

$Gly^{8}Arg^{26,34}Lys^{36}(N^{\varepsilon}$-(lithocholoyl))-GLP-1(7-37);

$Gly^{8}Arg^{26}Lys^{34}(N^{\varepsilon}$-(lithocholoyl))-GLP-1(7-38);

$Lys^{26}(N^{\varepsilon}$-(lithocholoyl))Arg^{34}-GLP-1(7-38);

$Gly^{8}Lys^{26}(N^{\varepsilon}$-(lithocholoyl))$Arg^{34}$-GLP-1(7-38);

$Arg^{26,34}Lys^{36}(N^{\varepsilon}$-(lithocholoyl))-GLP-1(7-38);

$Arg^{26,34}Lys^{38}(N^{\varepsilon}$-(lithocholoyl))-GLP-1(7-38);

$Gly^{8}Arg^{26,34}Lys^{36}(N^{\varepsilon}$-(lithocholoyl))-GLP-1(7-38);

$Gly^{8}Arg^{26}Lys^{34}(N^{\varepsilon}$-(lithocholoyl))-GLP-1(7-39);

$Lys^{26}(N^{\varepsilon}$-(lithocholoyl))Arg^{34}-GLP-1(7-39);

$Gly^{8}Lys^{26}(N^{\varepsilon}$-(lithocholoyl))$Arg^{34}$-GLP-1(7-39);

$Arg^{26,34}Lys^{36}(N^{\varepsilon}$-(lithocholoyl))-GLP-1(7-39); and

$Gly^{8}Arg^{26,34}Lys^{36}(N^{\varepsilon}$-(lithocholoyl))-GLP-1(7-39).

3. A derivative of an analog of GLP-1(7-36), GLP-1(7-37), GLP-1(7-38), or GLP-1(7-39), comprising the substitution of Ala at position 8 with Gly, Ser, Thr, Leu, Ile, Val, Glu, Asp, or Lys, wherein the derivative is optionally in the form of (a) a C-1-6-ester thereof, (b) amide, C-1-6-alkylamide, or C-1-6-dialkylamide thereof and/or (c) a pharmaceutically acceptable salt thereof, provided that

A. the derivative of the GLP-1 analog contains only one or two Lys,

B. the ε-amino group of one or both Lys is substituted with a lipophilic substituent optionally via a spacer,

C. the total number of different amino acids between the derivative of the GLP-1 analog and the corresponding native form of GLP-1 does not exceed six,

D. the derivative of an analog of GLP-1(7-36), GLP-1(7-37), GLP-1(7-38), or GLP-1(7-39), is not selected from:

$Gly^{8}Arg^{26,34}Lys^{36}(N^{\varepsilon}$-tetradecanoyl)-GLP-1(7-37),

$Gly^{8}Lys^{26}(N^{\varepsilon}$-tetradecanoyl)-GLP-1(7-37);

$Gly^{8}Lys^{34}(N^{\varepsilon}$-tetradecanoyl)-GLP-1(7-37);

$Gly^{8}Lys^{26,34}$-bis(N^{ε}-tetradecanoyl)-GLP-1(7-37);

$Gly^{8}Lys^{26}(N^{\varepsilon}$-tetradecanoyl)-GLP-1(7-38);

$Gly^{8}Lys^{34}(N^{\varepsilon}$-tetradecanoyl)-GLP-1(7-38);

$Gly^{8}Lys^{26,34}$-bis(N^{ε}-tetradecanoyl)-GLP-1(7-38);

$Gly^{8}Lys^{26}(N^{\varepsilon}$-tetradecanoyl)-GLP-1(7-39);

$Gly^{8}Lys^{34}(N^{\varepsilon}$-tetradecanoyl)-GLP-1(7-39);

$Gly^{8}Lys^{26,34}$-bis(N^{ε}-tetradecanoyl)-GLP-1(7-39);

$Gly^{8}Lys^{26}(N^{\varepsilon}$-tetradecanoyl)-GLP-1(7-36);

$Gly^{8}Lys^{34}(N^{\varepsilon}$-tetradecanoyl)-GLP-1(7-36);

$Gly^{8}Lys^{26,34}$-bis(N^{ε}-tetradecanoyl)-GLP-1(7-36);

$Gly^{8}Lys^{26}(N^{\varepsilon}$-tetradecanoyl)-GLP-1(7-36)amide;

$Gly^{8}Lys^{34}(N^{\varepsilon}$-tetradecanoyl)-GLP-1(7-36)amide;

$Gly^{8}Lys^{26,34}$-bis(N^{ε}-tetradecanoyl)-GLP-1(7-36)amide;

$Gly^{8}Arg^{26}Lys^{34}(N^{\varepsilon}$-tetradecanoyl)-GLP-1(7-37);

$Gly^{8}Lys^{26}(N^{\varepsilon}$-tetradecanoyl)$Arg^{34}$-GLP-1(7-37);

$Gly^{8}Arg^{26,34}Lys^{36}(N^{\varepsilon}$-tetradecanoyl)-GLP-1(7-37);

$Gly^{8}Arg^{26}Lys^{34}(N^{\varepsilon}$-tetradecanoyl)-GLP-1(7-38);

$Gly^{8}Lys^{26}(N^{\varepsilon}$-tetradecanoyl)$Arg^{34}$-GLP-1(7-38);

$Gly^{8}Arg^{26,34}Lys^{36}(N^{\varepsilon}$-tetradecanoyl)-GLP-1(7-38);

$Gly^{8}Arg^{26}Lys^{34}(N^{\varepsilon}$-tetradecanoyl)-GLP-1(7-39);

$Gly^{8}Lys^{26}(N^{\varepsilon}$-tetradecanoyl)$Arg^{34}$-GLP-1(7-39);

$Gly^{8}Arg^{26,34}Lys^{36}(N^{\varepsilon}$-tetradecanoyl)-GLP-1(7-39);

$Gly^{8}Lys^{26}(N^{\varepsilon}$-(ω-carboxynonadecanoyl))-GLP-1(7-37);

$Gly^{8}Lys^{34}(N^{\varepsilon}$-(ω-carboxynonadecanoyl))-GLP-1(7-37);

$Gly^{8}Lys^{26,34}$-bis(N^{ε}-(ω-carboxynonadecanoyl))-GLP-1(7-37);

$Gly^{8}Lys^{26}(N^{\varepsilon}$-(ω-carboxynonadecanoyl))-GLP-1(7-38);

$Gly^{8}Lys^{34}(N^{\varepsilon}$-(ω-carboxynonadecanoyl))-GLP-1(7-38);

$Gly^{8}Lys^{26,34}$-bis(N^{ε}-(ω-carboxynonadecanoyl))-GLP-1(7-38);

$Gly^{8}Lys^{26}(N^{\varepsilon}$-(ω-carboxynonadecanoyl))-GLP-1(7-39);

$Gly^{8}Lys^{34}(N^{\varepsilon}$-(ω-carboxynonadecanoyl))-GLP-1(7-39);

$Gly^{8}Lys^{26,34}$-bis(N^{ε}-(ω-carboxynonadecanoyl))-GLP-1(7-39);

$Gly^{8}Lys^{26}(N^{\varepsilon}$-(ω-carboxynonadecanoyl))-GLP-1(7-36);

$Gly^{8}Lys^{34}(N^{\varepsilon}$-(ω-carboxynonadecanoyl))-GLP-1(7-36);

$Gly^{8}Lys^{26,34}$-bis(N^{ε}-(ω-carboxynonadecanoyl))-GLP-1(7-36);

$Gly^{8}Lys^{26}(N^{\varepsilon}$-(ω-carboxynonadecanoyl))-GLP-1(7-36)amide;

$Gly^{8}Lys^{34}(N^{\varepsilon}$-(ω-carboxynonadecanoyl))-GLP-1(7-36)amide;

$Gly^{8}Lys^{26,34}$-bis(N^{ε}-(ω-carboxynonadecanoyl))-GLP-1(7-36)amide;

$Gly^{8}Arg^{26}Lys^{34}(N^{\varepsilon}$-(ω–carboxynonadecanoyl))-GLP-1(7-37);

$Gly^{8}Lys^{26}(N^{\varepsilon}$-(ω–carboxynonadecanoyl))Arg^{34}-GLP-1(7-37);

$Gly^{8}Arg^{26,34}Lys^{36}(N^{\varepsilon}$-(ω–carboxynonadecanoyl))-GLP-1(7-37);

$Gly^{8}Arg^{26}Lys^{34}(N^{\varepsilon}$-(ω–carboxynonadecanoyl))-GLP-1(7-38);

$Gly^{8}Lys^{26}(N^{\varepsilon}$-(ω–carboxynonadecanoyl))Arg^{34}-GLP-1(7-38);

$Gly^{8}Arg^{26,34}Lys^{36}(N^{\varepsilon}$-(ω–carboxynonadecanoyl))-GLP-1(7-38);

$Gly^{8}Arg^{26}Lys^{34}(N^{\varepsilon}$-(ω–carboxynonadecanoyl))-GLP-1(7-39);

$Gly^{8}Lys^{26}(N^{\varepsilon}$-(ω–carboxynonadecanoyl))Arg^{34}-GLP-1(7-39);

$Gly^{8}Arg^{26,34}Lys^{36}(N^{\varepsilon}$-(ω–carboxynonadecanoyl))-GLP-1(7-39);

$Gly^{8}Lys^{26}(N^{\varepsilon}$-(7-deoxycholoyl))-GLP-1(7-37);

$Gly^{8}Lys^{34}(N^{\varepsilon}$-(7-deoxycholoyl))-GLP-1(7-37);

$Gly^{8}Lys^{26,34}$-bis(N^{ε}-(7-deoxycholoyl))-GLP-1(7-37);

$Gly^{8}Lys^{26}(N^{\varepsilon}$-(7-deoxycholoyl))-GLP-1(7-38);

$Gly^{8}Lys^{34}(N^{\varepsilon}$-(7-deoxycholoyl))-GLP-1(7-38);

$Gly^{8}Lys^{26,34}$-bis(N^{ε}-(7-deoxycholoyl))-GLP-1(7-38);

$Gly^{8}Lys^{26}(N^{\varepsilon}$-(7-deoxycholoyl))-GLP-1(7-39);

$Gly^{8}Lys^{34}(N^{\varepsilon}$-(7-deoxycholoyl))-GLP-1(7-39);

$Gly^{8}Lys^{26,34}$-bis(N^{ε}-(7-deoxycholoyl))-GLP-1(7-39);

$Gly^{8}Lys^{26}(N^{\varepsilon}$-(7-deoxycholoyl))-GLP-1(7-36);

$Gly^{8}Lys^{34}(N^{\varepsilon}$-(7-deoxycholoyl))-GLP-1(7-36);

$Gly^{8}Lys^{26,34}$-bis(N^{ε}-(7-deoxycholoyl))-GLP-1(7-36);

$Gly^{8}Lys^{26}(N^{\varepsilon}$-(7-deoxycholoyl))-GLP-1(7-36)amide;

$Gly^{8}Lys^{34}(N^{\varepsilon}$-(7-deoxycholoyl))-GLP-1(7-36)amide;

$Gly^{8}Lys^{26,34}$-bis(N^{ε}-(7-deoxycholoyl))-GLP-1(7-36)amide;

$Gly^{8}Arg^{26}Lys^{34}(N^{\varepsilon}$-(7-deoxycholoyl))-GLP-1(7-37);

$Gly^{8}Lys^{26}(N^{\varepsilon}$-(7-deoxycholoyl))$Arg^{34}$-GLP-1(7-37);

$Gly^{8}Arg^{26,34}Lys^{36}(N^{\varepsilon}$-(7-deoxycholoyl))-GLP-1(7-37);

$Gly^{8}Lys^{26}(N^{\varepsilon}$-(choloyl))-GLP-1(7-37);

$Gly^{8}Lys^{34}(N^{\varepsilon}$-(choloyl))-GLP-1(7-37);

$Gly^{8}Lys^{26,34}$-bis(N^{ε}-(choloyl))-GLP-1(7-37);

$Gly^{8}Arg^{26}Lys^{34}(N^{\varepsilon}$-(7-deoxycholoyl))-GLP-1(7-38);

$Gly^{8}Lys^{26}(N^{\varepsilon}$-(7-deoxycholoyl))$Arg^{34}$-GLP-1(7-38);

$Gly^{8}Arg^{26,34}Lys^{36}(N^{\varepsilon}$-(7-deoxycholoyl))-GLP-1(7-38);

$Gly^{8}Lys^{26}(N^{\varepsilon}$-(choloyl))-GLP-1(7-38);

$Gly^{8}Lys^{34}(N^{\varepsilon}$-(choloyl))-GLP-1(7-38);

$Gly^{8}Lys^{26,34}$-bis(N^{ε}-(choloyl))-GLP-1(7-38);

$Gly^{8}Arg^{26}Lys^{34}(N^{\varepsilon}$-(7-deoxycholoyl))-GLP-1(7-39);

$Gly^{8}Lys^{26}(N^{\varepsilon}$-(7-deoxycholoyl))$Arg^{34}$-GLP-1(7-39);

$Gly^{8}Arg^{26,34}Lys^{36}(N^{\varepsilon}$-(7-deoxycholoyl))-GLP-1(7-39);

$Gly^{8}Lys^{26}(N^{\varepsilon}$-(choloyl))-GLP-1(7-39);

$Gly^{8}Lys^{34}(N^{\varepsilon}$-(choloyl))-GLP-1(7-39);

$Gly^{8}Lys^{26,34}$-bis(N^{ε}-(choloyl))-GLP-1(7-39);

$Gly^{8}Lys^{26}(N^{\varepsilon}$-(choloyl))-GLP-1(7-36);

$Gly^{8}Lys^{34}(N^{\varepsilon}$-(choloyl))-GLP-1(7-36);

$Gly^{8}Lys^{26,34}$-bis(N^{ε}-(choloyl))-GLP-1(7-36);

$Gly^{8}Lys^{26}(N^{\varepsilon}$-(choloyl))-GLP-1(7-36)amide;

$Gly^{8}Lys^{34}(N^{\varepsilon}$-(choloyl))-GLP-1(7-36)amide;

$Gly^{8}Lys^{26,34}$-bis(N^{ε}-(choloyl))-GLP-1(7-36)amide;

$Gly^{8}Arg^{26}Lys^{34}(N^{\varepsilon}$-(choloyl))-GLP-1(7-37);

$Gly^{8}Lys^{26}(N^{\varepsilon}$-(choloyl))$Arg^{34}$-GLP-1(7-37);

$Gly^{8}Arg^{26,34}Lys^{36}(N^{\varepsilon}$-(choloyl))-GLP-1(7-37);

$Gly^{8}Lys^{26}(N^{\varepsilon}$-(lithocholoyl))-GLP-1(7-37);

$Gly^{8}Lys^{34}(N^{\varepsilon}$-(lithocholoyl))-GLP-1(7-37);

$Gly^{8}Lys^{26,34}$-bis(N^{ε}-(lithocholoyl))-GLP-1(7-37);

$Gly^{8}Arg^{26}Lys^{34}(N^{\varepsilon}$-(choloyl))-GLP-1(7-38);

$Gly^{8}Lys^{26}(N^{\varepsilon}$-(choloyl))$Arg^{34}$-GLP-1(7-38);

$Gly^{8}Arg^{26,34}Lys^{36}(N^{\varepsilon}$-(choloyl))-GLP-1(7-38);

$Gly^{8}Lys^{26}(N^{\varepsilon}$-(lithocholoyl))-GLP-1(7-38);

$Gly^{8}Lys^{34}(N^{\varepsilon}$-(lithocholoyl))-GLP-1(7-38);

$Gly^{8}Lys^{26,34}$-bis(N^{ε}-(lithocholoyl))-GLP-1(7-38);

$Gly^{8}Arg^{26}Lys^{34}(N^{\varepsilon}$-(choloyl))-GLP-1(7-39);

$Gly^{8}Lys^{26}(N^{\varepsilon}$-(choloyl))$Arg^{34}$-GLP-1(7-39);

$Gly^{8}Arg^{26,34}Lys^{36}(N^{\varepsilon}$-(choloyl))-GLP-1(7-39);

$Gly^{8}Lys^{26}(N^{\varepsilon}$-(lithocholoyl))-GLP-1(7-39);

$Gly^{8}Lys^{34}(N^{\varepsilon}$-(lithocholoyl))-GLP-1(7-39);

$Gly^{8}Lys^{26,34}$-bis(N^{ε}-(lithocholoyl))-GLP-1(7-39);

$Gly^{8}Lys^{26}(N^{\varepsilon}$-(lithocholoyl))-GLP-1(7-36);

$Gly^{8}Lys^{34}(N^{\varepsilon}$-(lithocholoyl))-GLP-1(7-36);

$Gly^{8}Lys^{26,34}$-bis(N^{ε}-(lithocholoyl))-GLP-1(7-36);

$Gly^{8}Lys^{26}(N^{\varepsilon}$-(lithocholoyl))-GLP-1(7-36)amide;

$Gly^{8}Lys^{34}(N^{\varepsilon}$-(lithocholoyl))-GLP-1(7-36)amide;

$Gly^{8}Lys^{26,34}$-bis(N^{ε}-(lithocholoyl))-GLP-1(7-36)amide;

$Gly^{8}Arg^{26}Lys^{34}(N^{\varepsilon}$-(lithocholoyl))-GLP-1(7-37);

$Gly^{8}Lys^{26}(N^{\varepsilon}$-(lithocholoyl))$Arg^{34}$-GLP-1(7-37);

$Gly^{8}Arg^{26,34}Lys^{36}(N^{\varepsilon}$-(lithocholoyl))-GLP-1(7-37);

$Gly^{8}Arg^{26}Lys^{34}(N^{\varepsilon}$-(lithocholoyl))-GLP-1(7-38);

$Gly^{8}Lys^{26}(N^{\varepsilon}$-(lithocholoyl))$Arg^{34}$-GLP-1(7-38);

$Gly^{8}Arg^{26,34}Lys^{36}(N^{\varepsilon}$-(lithocholoyl))-GLP-1(7-38);

$Gly^{8}Arg^{26}Lys^{34}(N^{\varepsilon}$-(lithocholoyl))-GLP-1(7-39);

$Gly^{8}Lys^{26}(N^{\varepsilon}$-(lithocholoyl))$Arg^{34}$-GLP-1(7-39); and

$Gly^{8}Arg^{26,34}Lys^{36}(N^{\varepsilon}$-(lithocholoyl))-GLP-1(7-39).

4. A derivative of an analog of GLP-1(7-36), GLP-1(7-37), GLP-1(7-38), or GLP-1(7-39), comprising the substitution of Ser at position 18 with Ala, Gly, Thr, Leu, Ile, Val, Glu, Asp, or Lys, wherein the derivative is optionally in the form of (a) a C-1-6-ester thereof, (b) amide, C-1-

6-alkylamide, or C-1-6-dialkylamide thereof and/or (c) a pharmaceutically acceptable salt thereof, provided that

A. the derivative of the GLP-1 analog contains only one or two Lys,

B. the ε-amino group of one or both Lys is substituted with a lipophilic substituent optionally via a spacer,

C. the total number of different amino acids between the derivative of the GLP-1 analog and the corresponding native form of GLP-1 does not exceed six.

5. A derivative of an analog of GLP-1(7-36), GLP-1(7-37), GLP-1(7-38), or GLP-1(7-39), comprising the substitution of Tyr at position 19 with Phe, Trp, Glu, Asp, or Lys, wherein the derivative is optionally in the form of (a) a C-1-6-ester thereof, (b) amide, C-1-6-alkylamide, or C-1-6-dialkylamide thereof and/or (c) a pharmaceutically acceptable salt thereof, provided that

A. the derivative of the GLP-1 analog contains only one or two Lys,

B. the ε-amino group of one or both Lys is substituted with a lipophilic substituent optionally via a spacer,

C. the total number of different amino acids between the derivative of the GLP-1 analog and the corresponding native form of GLP-1 does not exceed six.

6. A derivative of an analog of GLP-1(7-36), GLP-1(7-37), GLP-1(7-38), or GLP-1(7-39), comprising the substitution of Leu at position 20 with Ala, Gly, Ser, Thr, Leu, Ile, Val, Glu, Asp, or Lys, wherein the derivative is optionally in the form of (a) a C-1-6-ester thereof, (b) amide, C-1-6-alkylamide, or C-1-6-dialkylamide thereof and/or (c) a pharmaceutically acceptable salt thereof, provided that

A. the derivative of the GLP-1 analog contains only one or two Lys,

B. the ε-amino group of one or both Lys is substituted with a lipophilic substituent optionally via a spacer,

C. the total number of different amino acids between the derivative of the GLP-1 analog and the corresponding native form of GLP-1 does not exceed six.

7. A derivative of an analog of GLP-1(7-36), GLP-1(7-37), GLP-1(7-38), or GLP-1(7-39), comprising the substitution of Glu at position 21 with Asp or Lys, wherein the derivative is optionally in the form of (a) a C-1-6-ester thereof, (b) amide, C-1-6-alkylamide, or C-1-6-dialkylamide thereof and/or (c) a pharmaceutically acceptable salt thereof, provided that

A. the derivative of the GLP-1 analog contains only one or two Lys,

B. the ε-amino group of one or both Lys is substituted with a lipophilic substituent optionally via a spacer,

C. the total number of different amino acids between the derivative of the GLP-1 analog and the corresponding native form of GLP-1 does not exceed six.

8. A derivative of an analog of GLP-1(7-36), GLP-1(7-37), GLP-1(7-38), or GLP-1(7-39), comprising the substitution of Gly at position 22 with Ala, Ser, Thr, Leu, Ile, Val, Glu, Asp, or Lys, wherein the derivative is optionally in the form of (a) a C-1-6-ester thereof, (b) amide, C-1-6-alkylamide, or C-1-6-dialkylamide thereof and/or (c) a pharmaceutically acceptable salt thereof, provided that

A. the derivative of the GLP-1 analog contains only one or two Lys,

B. the ε-amino group of one or both Lys is substituted with a lipophilic substituent optionally via a spacer,

C. the total number of different amino acids between the derivative of the GLP-1 analog and the corresponding native form of GLP-1 does not exceed six

D. the derivative of an analog of GLP-1(7-36), GLP-1(7-37), GLP-1(7-38), or GLP-1(7-39), is not $Glu^{22,23,30}Arg^{26,34}Lys^{38}(N^{\varepsilon}$-(γ-glutamyl($N^{\alpha}$-tetradecanoyl)))-GLP-1(7-38)-OH.

9. A derivative of an analog of GLP-1(7-36), GLP-1(7-37), GLP-1(7-38), or GLP-1(7-39), comprising the substitution of Gln at position 23 with Asn, Arg, Glu, Asp, or Lys, wherein the derivative is optionally in the form of (a) a C-1-6-ester thereof, (b) amide, C-1-6-alkylamide, or C-1-6-dialkylamide thereof and/or (c) a pharmaceutically acceptable salt thereof, provided that

A. the derivative of the GLP-1 analog contains only one or two Lys,

B. the ε-amino group of one or both Lys is substituted with a lipophilic substituent optionally via a spacer,

C. the total number of different amino acids between the derivative of the GLP-1 analog and the corresponding native form of GLP-1 does not exceed six

D. the derivative of an analog of GLP-1(7-36), GLP-1(7-37), GLP-1(7-38), or GLP-1(7-39), is not selected from:

$Glu^{22,23,30}Arg^{26,34}Lys^{38}(N^{\varepsilon}$-(γ-glutamyl($N^{\alpha}$-tetradecanoyl)))-GLP-1(7-38)-OH,

$Glu^{23,26}Arg^{34}Lys^{38}(N^{\varepsilon}$-(γ-glutamyl($N^{\alpha}$-tetradecanoyl)))-GLP-1(7-38)-OH, and

$Arg^{18,23,26,30,34}Lys^{38}(N^{\varepsilon}$-hexadecanoyl)-GLP-1(7-38)-OH.

10. A derivative of an analog of GLP-1(7-36), GLP-1(7-37), GLP-1(7-38), or GLP-1(7-39), comprising the substitution of Ala at position 24 with Gly, Ser, Thr, Leu, Ile, Val, Arg, Glu, Asp, or Lys, wherein the derivative is optionally in the form of (a) a C-1-6-ester thereof, (b) amide, C-1-6-alkylamide, or C-1-6-dialkylamide thereof and/or (c) a pharmaceutically acceptable salt thereof, provided that

A. the derivative of the GLP-1 analog contains only one or two Lys,

B. the ε-amino group of one or both Lys is substituted with a lipophilic substituent optionally via a spacer,

C. the total number of different amino acids between the derivative of the GLP-1 analog and the corresponding native form of GLP-1 does not exceed six.

11. A derivative of an analog of GLP-1(7-36), GLP-1(7-37), GLP-1(7-38), or GLP-1(7-39), comprising the substitution of Ala at position 25 with Gly, Ser, Thr, Leu, Ile, Val, Glu, Asp, or Lys, wherein the derivative is optionally in the form of (a) a C-1-6-ester thereof, (b) amide, C-1-6-alkylamide, or C-1-6-dialkylamide thereof and/or (c) a pharmaceutically acceptable salt thereof, provided that

A. the derivative of the GLP-1 analog contains only one or two Lys,

B. the ε-amino group of one or both Lys is substituted with a lipophilic substituent optionally via a spacer,

C. the total number of different amino acids between the derivative of the GLP-1 analog and the corresponding native form of GLP-1 does not exceed six.

12. A derivative of an analog of GLP-1(7-36), GLP-1(7-37), GLP-1(7-38), or GLP-1(7-39), comprising the substitution of Lys at position 26 with Arg, Gln, His, Glu, or Asp, wherein the derivative is optionally in the form of (a) a C-1-6-ester thereof, (b) amide, C-1-6-alkylamide, or C-1-6-dialkylamide thereof and/or (c) a pharmaceutically acceptable salt thereof, provided that

A. the derivative of the GLP-1 analog contains only one or two Lys,

B. the ε-amino group of one or both Lys is substituted with a lipophilic substituent optionally via a spacer,

C. the total number of different amino acids between the derivative of the GLP-1 analog and the corresponding native form of GLP-1 does not exceed six

D. the derivative of an analog of GLP-1(7-36), GLP-1(7-37), GLP-1(7-38), or GLP-1(7-39), is not selected from:

$Gly^{8}Arg^{26,34}Lys^{36}(N^{\varepsilon}$-tetradecanoyl)-GLP-1(7-37),

$Arg^{26,34}Lys^{36}$ (N^{ε}-tetradecanoyl)-GLP-1(7-37)-OH,

$Arg^{26,34}Lys^{36}$(N^{ε}-(ω-carboxynonadecanoyl))-GLP-1(7-36)-OH,

$Arg^{26,34}Lys^{38}$(N^{ε}-(ω–carboxynonadecanoyl))-GLP-1(7-38)-OH,

$Arg^{26,34}Lys^{36}$ (N^{ε}-(ω–carboxyheptadecanoyl))-GLP-1(7-37)-OH,

$Arg^{26,34}Lys^{38}$(N^{ε}-(ω–carboxyheptadecanoyl))-GLP-1(7-38)-OH,

$Arg^{26,34}Lys^{36}$ (N^{ε}-(ω–carboxyheptadecanoyl))-GLP-1(7-36)-OH,

$Arg^{26,34}Lys^{36}$ (N^{ε}-(ω–carboxyundecanoyl))-GLP-1(7-37)-OH,

$Arg^{26,34}Lys^{38}$(N^{ε}-(ω–carboxyundecanoyl))-GLP-1(7-38)-OH,

$Arg^{26,34}Lys^{36}$ (N^{ε}-(ω–carboxyundecanoyl))-GLP-1(7-36)-OH,

$Arg^{26,34}Lys^{38}$(N^{ε}-(ω–carboxyheptanoyl))-GLP-1(7-38)-OH,

$Arg^{26,34}Lys^{36}$ (N^{ε}-(ω–carboxyheptanoyl))-GLP-1(7-37)-OH,

$Arg^{26,34}Lys^{36}$ (N^{ε}-(ω–carboxyheptanoyl))-GLP-1(7-36)-OH,

$Arg^{26,34}Lys^{36}$ (N^{ε}-(ω–carboxyheptanoyl))-GLP-1(7-36)-OH,

$Glu^{22,23,30}Arg^{26,34}Lys^{38}$($N^{\varepsilon}$-(γ-glutamyl($N^{\alpha}$-tetradecanoyl)))-GLP-1(7-38)-OH,

$Glu^{23,26}Arg^{34}Lys^{38}$($N^{\varepsilon}$-(γ-glutamyl($N^{\alpha}$-tetradecanoyl)))-GLP-1(7-38)-OH,

$Arg^{26,34}Lys^{38}$(N^{ε}-(ω-carboxypentadecanoyl))-GLP-1(7-38)-OH,

$Arg^{26,34}Lys^{38}$(N^{ε}-(γ-glutamyl(N^{α}-tetradecanoyl)))-GLP-1(7-38)-OH,

$Arg^{26,34}Lys^{38}$(N^{ε}-(ω-carboxypentadecanoyl))-GLP-1(7-38)-OH,

$Arg^{26,34}Lys^{38}$(N^{ε}-(γ-glutamyl(N^{α}-hexadecanoyl)))-GLP-1(7-38)-OH,

$Arg^{18,23,26,30,34}Lys^{38}$($N^{\varepsilon}$-hexadecanoyl)-GLP-1(7-38)-OH,

$Arg^{26,34}Lys^{38}$(N^{ε}-(ω-carboxytridecanoyl))-GLP-1(7-38)-OH,

$Arg^{26,34}Lys^{38}$(N^{ε}-(γ-glutamyl(N^{α}-octadecanoyl)))-GLP-1(7-38)-OH,

$Arg^{26}Lys^{34}$(N^{ε}-tetradecanoyl)-GLP-1(7-37);

$Arg^{26}Lys^{34}$(N^{ε}-tetradecanoyl)-GLP-1(7-38);

$Arg^{26}Lys^{34}$(N^{ε}-tetradecanoyl)-GLP-1(7-39);

$Arg^{26}Lys^{34}$(N^{ε}-tetradecanoyl)-GLP-1(7-36);

$Arg^{26}Lys^{34}$(N^{ε}-tetradecanoyl)-GLP-1(7-36)amide;

$Gly^{8}Arg^{26}Lys^{34}$(N^{ε}-tetradecanoyl)-GLP-1(7-37);

$Arg^{26,34}Lys^{36}$(N^{ε}-tetradecanoyl)-GLP-1(7-37);

$Gly^{8}Arg^{26,34}Lys^{36}$($N^{\varepsilon}$-tetradecanoyl)-GLP-1(7-37);

$Gly^{8}Arg^{26}Lys^{34}$(N^{ε}-tetradecanoyl)-GLP-1(7-38);

$Arg^{26,34}Lys^{36}$(N^{ε}-tetradecanoyl)-GLP-1(7-38);

$Arg^{26,34}Lys^{38}$(N^{ε}-tetradecanoyl)-GLP-1(7-38);

$Gly^{8}Arg^{26,34}Lys^{36}(N^{\varepsilon}$-tetradecanoyl)-GLP-1(7-38);

$Gly^{8}Arg^{26}Lys^{34}(N^{\varepsilon}$-tetradecanoyl)-GLP-1(7-39);

$Arg^{26,34}Lys^{36}(N^{\varepsilon}$-tetradecanoyl)-GLP-1(7-39);

$Gly^{8}Arg^{26,34}Lys^{36}(N^{\varepsilon}$-tetradecanoyl)-GLP-1(7-39);

$Arg^{26}Lys^{34}(N^{\varepsilon}$-(ω–carboxynonadecanoyl))-GLP-1(7-37);

$Gly^{8}Arg^{26}Lys^{34}(N^{\varepsilon}$-(ω–carboxynonadecanoyl))-GLP-1(7-37);

$Arg^{26,34}Lys^{36}(N^{\varepsilon}$-(ω–carboxynonadecanoyl))-GLP-1(7-37);

$Gly^{8}Arg^{26,34}Lys^{36}(N^{\varepsilon}$-(ω–carboxynonadecanoyl))-GLP-1(7-37);

$Arg^{26}Lys^{34}(N^{\varepsilon}$-(ω–carboxynonadecanoyl))-GLP-1(7-38);

$Gly^{8}Arg^{26}Lys^{34}(N^{\varepsilon}$-(ω–carboxynonadecanoyl))-GLP-1(7-38);

$Arg^{26,34}Lys^{36}(N^{\varepsilon}$-(ω–carboxynonadecanoyl))-GLP-1(7-38);

$Arg^{26,34}Lys^{38}(N^{\varepsilon}$-(ω–carboxynonadecanoyl))-GLP-1(7-38);

$Gly^{8}Arg^{26,34}Lys^{36}(N^{\varepsilon}$-(ω–carboxynonadecanoyl))-GLP-1(7-38);

$Arg^{26}Lys^{34}(N^{\varepsilon}$-(ω–carboxynonadecanoyl))-GLP-1(7-39);

$Gly^{8}Arg^{26}Lys^{34}(N^{\varepsilon}$-(ω–carboxynonadecanoyl))-GLP-1(7-39);

$Arg^{26,34}Lys^{36}(N^{\varepsilon}$-(ω–carboxynonadecanoyl))-GLP-1(7-39);

$Gly^{8}Arg^{26,34}Lys^{36}(N^{\varepsilon}$-(ω–carboxynonadecanoyl))-GLP-1(7-39);

$Arg^{26}Lys^{34}(N^{\varepsilon}$-(7-deoxycholoyl))-GLP-1(7-37);

$Arg^{26}Lys^{34}(N^{\varepsilon}$-(7-deoxycholoyl))-GLP-1(7-38);

$Arg^{26}Lys^{34}(N^{\varepsilon}$-(7-deoxycholoyl))-GLP-1(7-39);

$Arg^{26}Lys^{34}(N^{\varepsilon}$-(7-deoxycholoyl))-GLP-1(7-36);

$Arg^{26}Lys^{34}(N^{\varepsilon}$-(7-deoxycholoyl))-GLP-1(7-36)amide;

$Gly^{8}Arg^{26}Lys^{34}(N^{\varepsilon}$-(7-deoxycholoyl))-GLP-1(7-37);

$Arg^{26,34}Lys^{36}(N^{\varepsilon}$-(7-deoxycholoyl))-GLP-1(7-37);

$Gly^{8}Arg^{26,34}Lys^{36}(N^{\varepsilon}$-(7-deoxycholoyl))-GLP-1(7-37);

$Arg^{26}Lys^{34}(N^{\varepsilon}$-(choloyl))-GLP-1(7-37);

$Gly^{8}Arg^{26}Lys^{34}(N^{\varepsilon}$-(7-deoxycholoyl))-GLP-1(7-38);

$Arg^{26,34}Lys^{36}(N^{\varepsilon}$-(7-deoxycholoyl))-GLP-1(7-38);

$Arg^{26,34}Lys^{38}(N^{\varepsilon}$-(7-deoxycholoyl))-GLP-1(7-38);

$Gly^{8}Arg^{26,34}Lys^{36}(N^{\varepsilon}$-(7-deoxycholoyl))-GLP-1(7-38);

$Arg^{26}Lys^{34}(N^{\varepsilon}$-(choloyl))-GLP-1(7-38);

$Gly^{8}Arg^{26}Lys^{34}(N^{\varepsilon}$-(7-deoxycholoyl))-GLP-1(7-39);

$Arg^{26,34}Lys^{36}(N^{\varepsilon}$-(7-deoxycholoyl))-GLP-1(7-39);

$Gly^{8}Arg^{26,34}Lys^{36}(N^{\varepsilon}$-(7-deoxycholoyl))-GLP-1(7-39);

$Arg^{26}Lys^{34}(N^{\varepsilon}$-(choloyl))-GLP-1(7-39);

$Arg^{26}Lys^{34}(N^{\varepsilon}$-(choloyl))-GLP-1(7-36);

$Arg^{26}Lys^{34}(N^{\varepsilon}$-(choloyl))-GLP-1(7-36)amide;

$Gly^{8}Arg^{26}Lys^{34}(N^{\varepsilon}$-(choloyl))-GLP-1(7-37);

Arg^{26},Lys^{34} (N^{ε}-(octanoyl)) GLP-1 (7-37)-OH;

$Arg^{26,34}Lys^{36}(N^{\varepsilon}$-(choloyl))-GLP-1(7-37);

$Gly^{8}Arg^{26,34}Lys^{36}(N^{\varepsilon}$-(choloyl))-GLP-1(7-37);

$Arg^{26}Lys^{34}(N^{\varepsilon}$-(lithocholoyl))-GLP-1(7-37);

$Gly^{8}Arg^{26}Lys^{34}(N^{\varepsilon}$-(choloyl))-GLP-1(7-38);

$Arg^{26,34}Lys^{36}(N^{\varepsilon}$-(choloyl))-GLP-1(7-38);

$Arg^{26,34}Lys^{38}(N^{\varepsilon}$-(choloyl))-GLP-1(7-38);

$Gly^{8}Arg^{26,34}Lys^{36}(N^{\varepsilon}$-(choloyl))-GLP-1(7-38);

$Arg^{26}Lys^{34}(N^{\varepsilon}$-(lithocholoyl))-GLP-1(7-38);

$Gly^{8}Arg^{26}Lys^{34}(N^{\varepsilon}$-(choloyl))-GLP-1(7-39);

$Arg^{26,34}Lys^{36}(N^{\varepsilon}$-(choloyl))-GLP-1(7-39);

$Gly^{8}Arg^{26,34}Lys^{36}(N^{\varepsilon}$-(choloyl))-GLP-1(7-39);

$Arg^{26}Lys^{34}(N^{\varepsilon}$-(lithocholoyl))-GLP-1(7-39);

$Arg^{26}Lys^{34}(N^{\varepsilon}$-(lithocholoyl))-GLP-1(7-37);

$Arg^{26}Lys^{34}(N^{\varepsilon}$-(lithocholoyl))-GLP-1(7-36);

$Arg^{26}Lys^{34}(N^{\varepsilon}$-(lithocholoyl))-GLP-1(7-36)amide;

$Gly^{8}Arg^{26}Lys^{34}(N^{\varepsilon}$-(lithocholoyl))-GLP-1(7-37);

$Arg^{26,34}Lys^{36}(N^{\varepsilon}$-(lithocholoyl))-GLP-1(7-37);

$Arg^{26,34}Lys^{38}(N^{\varepsilon}$-(lithocholoyl))-GLP-1(7-37);

$Gly^{8}Arg^{26,34}Lys^{36}(N^{\varepsilon}$-(lithocholoyl))-GLP-1(7-37);

$Gly^{8}Arg^{26}Lys^{34}(N^{\varepsilon}$-(lithocholoyl))-GLP-1(7-38);

$Arg^{26,34}Lys^{36}(N^{\varepsilon}$-(lithocholoyl))-GLP-1(7-38);

$Arg^{26,34}Lys^{38}(N^{\varepsilon}$-(lithocholoyl))-GLP-1(7-38);

$Gly^{8}Arg^{26,34}Lys^{36}(N^{\varepsilon}$-(lithocholoyl))-GLP-1(7-38);

$Gly^{8}Arg^{26}Lys^{34}(N^{\varepsilon}$-(lithocholoyl))-GLP-1(7-39);

$Arg^{26,34}Lys^{36}(N^{\varepsilon}$-(lithocholoyl))-GLP-1(7-39); and

$Gly^{8}Arg^{26,34}Lys^{36}(N^{\varepsilon}$-(lithocholoyl))-GLP-1(7-39).

13. A derivative of the preceding claim wherein Lys at position 26 is substituted with Arg.

14. A derivative of an analog of GLP-1(7-36), GLP-1(7-37), GLP-1(7-38), or GLP-1(7-39), comprising the substitution of Glu at position 27 with Asp or Lys, wherein the derivative is optionally in the form of (a) a C-1-6-ester thereof, (b) amide, C-1-6-alkylamide, or C-1-6-dialkylamide thereof and/or (c) a pharmaceutically acceptable salt thereof, provided that

A. the derivative of the GLP-1 analog contains only one or two Lys,

B. the ε-amino group of one or both Lys is substituted with a lipophilic substituent optionally via a spacer,

C. the total number of different amino acids between the derivative of the GLP-1 analog and the corresponding native form of GLP-1 does not exceed six.

15. A derivative of an analog of GLP-1(7-36), GLP-1(7-37), GLP-1(7-38), or GLP-1(7-39), comprising the substitution of Ala at position 30 with Gly, Ser, Thr, Leu, Ile, Val, Glu, Asp, or Lys, wherein the derivative is optionally in the form of (a) a C-1-6-ester thereof, (b) amide, C-1-6-alkylamide, or C-1-6-dialkylamide thereof and/or (c) a pharmaceutically acceptable salt thereof, provided that

A. the derivative of the GLP-1 analog contains only one or two Lys,

B. the ε-amino group of one or both Lys is substituted with a lipophilic substituent optionally via a spacer,

C. the total number of different amino acids between the derivative of the GLP-1 analog and the corresponding native form of GLP-1 does not exceed six,

D. the derivative of an analog of GLP-1(7-36), GLP-1(7-37), GLP-1(7-38), or GLP-1(7-39), is not $Glu^{22,23,30}Arg^{26,34}Lys^{38}(N^{\varepsilon}$-(γ-glutamyl($N^{\alpha}$-tetradecanoyl)))-GLP-1(7-38)-OH.

16. A derivative of an analog of GLP-1(7-36), GLP-1(7-37), GLP-1(7-38), or GLP-1(7-39), comprising the substitution of Trp at position 31 with Phe, Tyr, Glu, Asp, or Lys, wherein the derivative is optionally in the form of (a) a C-1-6-ester thereof, (b) amide, C-1-6-alkylamide, or C-1-6-dialkylamide thereof and/or (c) a pharmaceutically acceptable salt thereof, provided that

A. the derivative of the GLP-1 analog contains only one or two Lys,

B. the ε-amino group of one or both Lys is substituted with a lipophilic substituent optionally via a spacer,

C. the total number of different amino acids between the derivative of the GLP-1 analog and the corresponding native form of GLP-1 does not exceed six.

17. A derivative of an analog of GLP-1(7-36), GLP-1(7-37), GLP-1(7-38), or GLP-1(7-39), comprising the substitution of Leu at position 32 with Gly, Ala, Ser, Thr, Ile, Val, Glu, Asp, or Lys, wherein the derivative is optionally in the form of (a) a C-1-6-ester thereof, (b) amide, C-1-6-alkylamide, or C-1-6-dialkylamide thereof and/or (c) a pharmaceutically acceptable salt thereof, provided that

A. the derivative of the GLP-1 analog contains only one or two Lys,

B. the ε-amino group of one or both Lys is substituted with a lipophilic substituent optionally via a spacer,

C. the total number of different amino acids between the derivative of the GLP-1 analog and the corresponding native form of GLP-1 does not exceed six.

18. A derivative of an analog of GLP-1(7-36), GLP-1(7-37), GLP-1(7-38), or GLP-1(7-39), comprising the substitution of Val at position 33 with Gly, Ala, Ser, Thr, Leu, Ile, Glu, Asp, or Lys, wherein the derivative is optionally in the form of (a) a C-1-6-ester thereof, (b) amide, C-1-6-alkylamide, or C-1-6-dialkylamide thereof and/or (c) a pharmaceutically acceptable salt thereof, provided that

A. the derivative of the GLP-1 analog contains only one or two Lys,

B. the ε-amino group of one or both Lys is substituted with a lipophilic substituent optionally via a spacer,

C. the total number of different amino acids between the derivative of the GLP-1 analog and the corresponding native form of GLP-1 does not exceed six.

19. A derivative of an analog of GLP-1(7-36), GLP-1(7-37), GLP-1(7-38), or GLP-1(7-39), comprising the substitution of Lys at position 34 with Arg, Glu, or Asp, wherein the derivative is optionally in the form of (a) a C-1-6-ester thereof, (b) amide, C-1-6-alkylamide, or C-1-6-dialkylamide thereof and/or (c) a pharmaceutically acceptable salt thereof, provided that

A. the derivative of the GLP-1 analog contains only one or two Lys,

B. the ε-amino group of one or both Lys is substituted with a lipophilic substituent optionally via a spacer,

C. the total number of different amino acids between the derivative of the GLP-1 analog and the corresponding native form of GLP-1 does not exceed six,

D. the derivative of an analog of GLP-1(7-36), GLP-1(7-37), GLP-1(7-38), or GLP-1(7-39), is not selected from:

$Lys^{26}(N^{\varepsilon}$-tetradecanoyl)Arg^{34}-GLP-1(7-37),

$Gly^{8}Arg^{26,34}Lys^{36}(N^{\varepsilon}$-tetradecanoyl)-GLP-1(7-37),

$Arg^{26,34}Lys^{36}$ (N^{ε}-tetradecanoyl)-GLP-1(7-37)-OH,

$Arg^{26,34}Lys^{36}(N^{\varepsilon}$-(ω-carboxynonadecanoyl))-GLP-1(7-36)-OH,

$Arg^{26,34}Lys^{38}(N^{\varepsilon}$-(ω–carboxynonadecanoyl))-GLP-1(7-38)-OH,

$Arg^{34}Lys^{26}$ (N^{ε}-(ω–carboxynonadecanoyl))-GLP-1(7-37)-OH,

$Arg^{34}Lys^{26}$ (N^{ε}-(ω–carboxyheptadecanoyl))-GLP-1(7-37)-OH,

$Arg^{26,34}Lys^{36}$ (N^{ε}-(ω–carboxyheptadecanoyl))-GLP-1(7-37)-OH,

$Arg^{26,34}Lys^{38}(N^{\varepsilon}$-(ω–carboxyheptadecanoyl))-GLP-1(7-38)-OH,

$Arg^{26,34}Lys^{36}$ (N^{ε}-(ω–carboxyheptadecanoyl))-GLP-1(7-36)-OH,

$Arg^{26,34}Lys^{36}$ (N^{ε}-(ω–carboxyundecanoyl))-GLP-1(7-37)-OH,

$Arg^{26,34}Lys^{38}(N^{\varepsilon}$-(ω–carboxyundecanoyl))-GLP-1(7-38)-OH,

$Arg^{26,34}Lys^{36}$ (N^{ε}-(ω–carboxyundecanoyl))-GLP-1(7-36)-OH,

$Arg^{34}Lys^{26}$ (N^{ε}-(ω–carboxyundecanoyl))-GLP-1(7-37)-OH,

$Arg^{34}Lys^{26}$ (N^{ε}-(ω–carboxyheptanoyl))-GLP-1(7-37)-OH,

$Arg^{26,34}Lys^{38}(N^{\varepsilon}$-(ω–carboxyheptanoyl))-GLP-1(7-38)-OH,

$Arg^{26,34}Lys^{36}$ (N^{ε}-(ω–carboxyheptanoyl))-GLP-1(7-37)-OH,

$Arg^{26,34}Lys^{36}$ (N^{ε}-(ω–carboxyheptanoyl))-GLP-1(7-36)-OH,

$Arg^{34}Lys^{26}$ (N^{ε}-(ω–carboxypentadecanoyl))-GLP-1(7-37)-OH,

$Arg^{26,34}Lys^{36}$ (N^{ε}-(ω–carboxyheptanoyl))-GLP-1(7-36)-OH,

$Arg^{34}Lys^{26}(N^{\varepsilon}$-lithocholyl)-GLP-1(7-37)-OH,

$Glu^{22,23,30}Arg^{26,34}Lys^{38}(N^{\varepsilon}$-(γ-glutamyl($N^{\alpha}$-tetradecanoyl)))-GLP-1(7-38)-OH,

$Glu^{23,26}Arg^{34}Lys^{38}(N^{\varepsilon}$-(γ-glutamyl($N^{\alpha}$-tetradecanoyl)))-GLP-1(7-38)-OH,

$Arg^{26,34}Lys^{38}(N^{\varepsilon}$-(ω-carboxypentadecanoyl))-GLP-1(7-38)-OH,

$Arg^{34}Lys^{26}(N^{\varepsilon}$-(γ-glutamyl($N^{\alpha}$-hexadecanoyl)))-GLP-1(7-37)-OH,

$Arg^{26,34}Lys^{38}(N^{\varepsilon}$-(γ-glutamyl($N^{\alpha}$-tetradecanoyl)))-GLP-1(7-38)-OH,

$Arg^{26,34}Lys^{38}(N^{\varepsilon}$-(ω-carboxypentadecanoyl))-GLP-1(7-38)-OH,

$Arg^{26,34}Lys^{38}(N^{\varepsilon}$-(γ-glutamyl($N^{\alpha}$-hexadecanoyl)))-GLP-1(7-38)-OH,

$Arg^{18,23,26,30,34}Lys^{38}(N^{\varepsilon}$-hexadecanoyl)-GLP-1(7-38)-OH,

$Arg^{26,34}Lys^{38}(N^{\varepsilon}$-(ω-carboxytridecanoyl))-GLP-1(7-38)-OH,

$Arg^{34}Lys^{26}(N^{\varepsilon}$-(γ-glutamyl($N^{\alpha}$-tetradecanoyl)))-GLP-1(7-37)-OH,

$Arg^{26,34}Lys^{38}(N^{\varepsilon}$-(γ-glutamyl($N^{\alpha}$-octadecanoyl)))-GLP-1(7-38)-OH,

$Arg^{26,34}Lys^{36}(N^{\varepsilon}$-tetradecanoyl)-GLP-1(7-37);

$Gly^{8}Arg^{26,34}Lys^{36}(N^{\varepsilon}$-tetradecanoyl)-GLP-1(7-37);

$Lys^{26}(N^{\varepsilon}$-tetradecanoyl)Arg^{34}-GLP-1(7-38);

$Gly^{8}Lys^{26}(N^{\varepsilon}$-tetradecanoyl)$Arg^{34}$-GLP-1(7-38);

$Arg^{26,34}Lys^{36}(N^{\varepsilon}$-tetradecanoyl)-GLP-1(7-38);

$Arg^{26,34}Lys^{38}(N^{\varepsilon}$-tetradecanoyl)-GLP-1(7-38);

$Gly^{8}Arg^{26,34}Lys^{36}(N^{\varepsilon}$-tetradecanoyl)-GLP-1(7-38);

$Lys^{26}(N^{\varepsilon}$-tetradecanoyl)Arg^{34}-GLP-1(7-39);

$Gly^{8}Lys^{26}(N^{\varepsilon}$-tetradecanoyl)$Arg^{34}$-GLP-1(7-39);

$Arg^{26,34}Lys^{36}(N^{\varepsilon}$-tetradecanoyl)-GLP-1(7-39);

$Gly^{8}Arg^{26,34}Lys^{36}(N^{\varepsilon}$-tetradecanoyl)-GLP-1(7-39);

$Arg^{26,34}Lys^{36}(N^{\varepsilon}$-(ω–carboxynonadecanoyl))-GLP-1(7-37);

$Gly^{8}Arg^{26,34}Lys^{36}(N^{\varepsilon}$-(ω–carboxynonadecanoyl))-GLP-1(7-37);

$Lys^{26}(N^{\varepsilon}$-(ω–carboxynonadecanoyl))Arg^{34}-GLP-1(7-38);

$Gly^{8}Lys^{26}(N^{\varepsilon}$-(ω–carboxynonadecanoyl))Arg^{34}-GLP-1(7-38);

$Arg^{26,34}Lys^{36}(N^{\varepsilon}$-(ω–carboxynonadecanoyl))-GLP-1(7-38);

$Arg^{26,34}Lys^{38}(N^{\varepsilon}$-(ω–carboxynonadecanoyl))-GLP-1(7-38);

$Gly^{8}Arg^{26,34}Lys^{36}(N^{\varepsilon}$-(ω–carboxynonadecanoyl))-GLP-1(7-38);

$Lys^{26}(N^{\varepsilon}$-(ω–carboxynonadecanoyl))Arg^{34}-GLP-1(7-39);

$Gly^{8}Lys^{26}(N^{\varepsilon}$-(ω–carboxynonadecanoyl))Arg^{34}-GLP-1(7-39);

$Arg^{26,34}Lys^{36}(N^{\varepsilon}$-(ω–carboxynonadecanoyl))-GLP-1(7-39);

$Gly^{8}Arg^{26,34}Lys^{36}(N^{\varepsilon}$-(ω–carboxynonadecanoyl))-GLP-1(7-39);

$Arg^{26,34}Lys^{36}(N^{\varepsilon}$-(7-deoxycholoyl))-GLP-1(7-37);

$Gly^{8}Arg^{26,34}Lys^{36}(N^{\varepsilon}$-(7-deoxycholoyl))-GLP-1(7-37);

$Lys^{26}(N^{\varepsilon}$-(7-deoxycholoyl))Arg^{34}-GLP-1(7-38);

$Gly^{8}Lys^{26}(N^{\varepsilon}$-(7-deoxycholoyl))$Arg^{34}$-GLP-1(7-38);

$Arg^{26,34}Lys^{36}(N^{\varepsilon}$-(7-deoxycholoyl))-GLP-1(7-38);

$Arg^{26,34}Lys^{38}(N^{\varepsilon}$-(7-deoxycholoyl))-GLP-1(7-38);

$Gly^{8}Arg^{26,34}Lys^{36}(N^{\varepsilon}$-(7-deoxycholoyl))-GLP-1(7-38);

$Lys^{26}(N^{\varepsilon}$-(7-deoxycholoyl))Arg^{34}-GLP-1(7-39);

$Gly^{8}Lys^{26}(N^{\varepsilon}$-(7-deoxycholoyl))$Arg^{34}$-GLP-1(7-39);

$Arg^{26,34}Lys^{36}(N^{\varepsilon}$-(7-deoxycholoyl))-GLP-1(7-39);

$Gly^{8}Arg^{26,34}Lys^{36}(N^{\varepsilon}$-(7-deoxycholoyl))-GLP-1(7-39);

$Lys^{26}(N^{\varepsilon}$-(cholroyl))Arg^{34}-GLP-1(7-37);

$Gly^{8}Lys^{26}(N^{\varepsilon}$-(cholroyl))$Arg^{34}$-GLP-1(7-37);

$Arg^{26,34}Lys^{36}(N^{\varepsilon}$-(cholroyl))-GLP-1(7-37);

$Gly^{8}Arg^{26,34}Lys^{36}(N^{\varepsilon}$-(cholroyl))-GLP-1(7-37);

$Lys^{26}(N^{\varepsilon}$-(cholroyl))Arg^{34}-GLP-1(7-38);

$Gly^{8}Lys^{26}(N^{\varepsilon}$-(cholroyl))$Arg^{34}$-GLP-1(7-38);

$Arg^{26,34}Lys^{36}(N^{\varepsilon}$-(cholroyl))-GLP-1(7-38);

$Arg^{26,34}Lys^{38}(N^{\varepsilon}$-(cholroyl))-GLP-1(7-38);

$Gly^{8}Arg^{26,34}Lys^{36}(N^{\varepsilon}$-(cholroyl))-GLP-1(7-38);

$Lys^{26}(N^{\varepsilon}$-(cholroyl))Arg^{34}-GLP-1(7-39);

$Gly^{8}Lys^{26}(N^{\varepsilon}$-(cholroyl))$Arg^{34}$-GLP-1(7-39);

$Arg^{26,34}Lys^{36}(N^{\varepsilon}$-(cholroyl))-GLP-1(7-39);

$Gly^{8}Arg^{26,34}Lys^{36}(N^{\varepsilon}$-(cholroyl))-GLP-1(7-39);

$Lys^{26}(N^{\varepsilon}$-(lithocholoyl))Arg^{34}-GLP-1(7-37);

$Gly^{8}Lys^{26}(N^{\varepsilon}$-(lithocholoyl))$Arg^{34}$-GLP-1(7-37);

$Arg^{26,34}Lys^{36}(N^{\varepsilon}$-(lithocholoyl))-GLP-1(7-37);

$Arg^{26,34}Lys^{38}(N^{\varepsilon}$-(lithocholoyl))-GLP-1(7-37);

$Gly^{8}Arg^{26,34}Lys^{36}(N^{\varepsilon}$-(lithocholoyl))-GLP-1(7-37);

$Lys^{26}(N^{\varepsilon}$-(lithocholoyl))Arg^{34}-GLP-1(7-38);

$Gly^{8}Lys^{26}(N^{\varepsilon}$-(lithocholoyl))$Arg^{34}$-GLP-1(7-38);

$Arg^{26,34}Lys^{36}(N^{\varepsilon}$-(lithocholoyl))-GLP-1(7-38);

$Arg^{26,34}Lys^{38}(N^{\varepsilon}$-(lithocholoyl))-GLP-1(7-38);

$Gly^{8}Arg^{26,34}Lys^{36}(N^{\varepsilon}$-(lithocholoyl))-GLP-1(7-38);

$Lys^{26}(N^{\varepsilon}$-(lithocholoyl))Arg^{34}-GLP-1(7-39);

$Gly^{8}Lys^{26}(N^{\varepsilon}$-(lithocholoyl))$Arg^{34}$-GLP-1(7-39);

$Arg^{26,34}Lys^{36}(N^{\varepsilon}$-(lithocholoyl))-GLP-1(7-39); and

$Gly^{8}Arg^{26,34}Lys^{36}(N^{\varepsilon}$-(lithocholoyl))-GLP-1(7-39).

20. A derivative of the preceding claim wherein Lys at position 34 is substituted with Arg.

21. A derivative of an analog of GLP-1(7-36), GLP-1(7-37), GLP-1(7-38), or GLP-1(7-39), comprising the substitution of Gly at position 35 with Ala, Ser, Thr, Leu, Ile, Val, Glu, Asp, or Lys, wherein the derivative is optionally in the form of (a) a C-1-6-ester thereof, (b) amide, C-1-

6-alkylamide, or C-1-6-dialkylamide thereof and/or (c) a pharmaceutically acceptable salt thereof, provided that

A. the derivative of the GLP-1 analog contains only one or two Lys,

B. the ε-amino group of one or both Lys is substituted with a lipophilic substituent optionally via a spacer,

C. the total number of different amino acids between the derivative of the GLP-1 analog and the corresponding native form of GLP-1 does not exceed six.

22. A derivative of an analog of GLP-1(7-36), GLP-1(7-37), GLP-1(7-38), or GLP-1(7-39), comprising the substitution of Arg at position 36 with His, Lys, Glu, or Asp, wherein the derivative is optionally in the form of (a) a C-1-6-ester thereof, (b) amide, C-1-6-alkylamide, or C-1-6-dialkylamide thereof and/or (c) a pharmaceutically acceptable salt thereof, provided that

A. the derivative of the GLP-1 analog contains only one or two Lys,

B. the ε-amino group of one or both Lys is substituted with a lipophilic substituent optionally via a spacer,

C. the total number of different amino acids between the derivative of the GLP-1 analog and the corresponding native form of GLP-1 does not exceed six.

D. the derivative of an analog of GLP-1(7-36), GLP-1(7-37), GLP-1(7-38), or GLP-1(7-39), is not selected from:

$Gly^{8}Arg^{26,34}Lys^{36}$($N^{\varepsilon}$-tetradecanoyl)-GLP-1(7-37),

$Arg^{26,34}Lys^{36}$ (N^{ε}-tetradecanoyl)-GLP-1(7-37)-OH,

$Arg^{26,34}Lys^{36}$(N^{ε}-(ω-carboxynonadecanoyl))-GLP-1(7-36)-OH,

$Arg^{26,34}Lys^{36}$ (N^{ε}-(ω–carboxyheptadecanoyl))-GLP-1(7-37)-OH,

$Arg^{26,34}Lys^{36}$ (N^{ε}-(ω–carboxyheptadecanoyl))-GLP-1(7-36)-OH,

$Arg^{26,34}Lys^{36}$ (N^{ε}-(ω–carboxyundecanoyl))-GLP-1(7-37)-OH,

$Arg^{26,34}Lys^{36}$ (N^{ε}-(ω–carboxyundecanoyl))-GLP-1(7-36)-OH,

$Arg^{26,34}Lys^{36}$ (N^{ε}-(ω–carboxyheptanoyl))-GLP-1(7-37)-OH,

$Arg^{26,34}Lys^{36}$ (N^{ε}-(ω–carboxyheptanoyl))-GLP-1(7-36)-OH,

$Arg^{26,34}Lys^{36}$ (N^{ε}-(ω–carboxyheptanoyl))-GLP-1(7-36)-OH,

$Arg^{26,34}Lys^{36}$(N^{ε}-tetradecanoyl)-GLP-1(7-37);

$Gly^{8}Arg^{26,34}Lys^{36}$($N^{\varepsilon}$-tetradecanoyl)-GLP-1(7-37);

$Arg^{26,34}Lys^{36}$(N^{ε}-tetradecanoyl)-GLP-1(7-38);

$Gly^{8}Arg^{26,34}Lys^{36}$($N^{\varepsilon}$-tetradecanoyl)-GLP-1(7-38);

$Arg^{26,34}Lys^{36}$(N^{ε}-tetradecanoyl)-GLP-1(7-39);

$Gly^{8}Arg^{26,34}Lys^{36}(N^{\varepsilon}$-tetradecanoyl)-GLP-1(7-39);

$Arg^{26,34}Lys^{36}(N^{\varepsilon}$-(ω–carboxynonadecanoyl))-GLP-1(7-37);

$Gly^{8}Arg^{26,34}Lys^{36}(N^{\varepsilon}$-(ω–carboxynonadecanoyl))-GLP-1(7-37);

$Arg^{26,34}Lys^{36}(N^{\varepsilon}$-(ω–carboxynonadecanoyl))-GLP-1(7-38);

$Gly^{8}Arg^{26,34}Lys^{36}(N^{\varepsilon}$-(ω–carboxynonadecanoyl))-GLP-1(7-38);

$Arg^{26,34}Lys^{36}(N^{\varepsilon}$-(ω–carboxynonadecanoyl))-GLP-1(7-39);

$Gly^{8}Arg^{26,34}Lys^{36}(N^{\varepsilon}$-(ω–carboxynonadecanoyl))-GLP-1(7-39);

$Arg^{26,34}Lys^{36}(N^{\varepsilon}$-(7-deoxycholoyl))-GLP-1(7-37);

$Gly^{8}Arg^{26,34}Lys^{36}(N^{\varepsilon}$-(7-deoxycholoyl))-GLP-1(7-37);

$Arg^{26,34}Lys^{36}(N^{\varepsilon}$-(7-deoxycholoyl))-GLP-1(7-38);

$Gly^{8}Arg^{26,34}Lys^{36}(N^{\varepsilon}$-(7-deoxycholoyl))-GLP-1(7-38);

$Arg^{26,34}Lys^{36}(N^{\varepsilon}$-(7-deoxycholoyl))-GLP-1(7-39);

$Gly^{8}Arg^{26,34}Lys^{36}(N^{\varepsilon}$-(7-deoxycholoyl))-GLP-1(7-39);

$Arg^{26,34}Lys^{36}(N^{\varepsilon}$-(choloyl))-GLP-1(7-37);

$Gly^{8}Arg^{26,34}Lys^{36}(N^{\varepsilon}$-(choloyl))-GLP-1(7-37);

$Arg^{26,34}Lys^{36}(N^{\varepsilon}$-(choloyl))-GLP-1(7-38);

$Gly^{8}Arg^{26,34}Lys^{36}(N^{\varepsilon}$-(choloyl))-GLP-1(7-38);

$Arg^{26,34}Lys^{36}(N^{\varepsilon}$-(choloyl))-GLP-1(7-39);

$Gly^{8}Arg^{26,34}Lys^{36}(N^{\varepsilon}$-(choloyl))-GLP-1(7-39);

$Arg^{26,34}Lys^{36}(N^{\varepsilon}$-(lithocholoyl))-GLP-1(7-37);

$Gly^{8}Arg^{26,34}Lys^{36}(N^{\varepsilon}$-(lithocholoyl))-GLP-1(7-37);

$Arg^{26,34}Lys^{36}(N^{\varepsilon}$-(lithocholoyl))-GLP-1(7-38);

$Gly^{8}Arg^{26,34}Lys^{36}(N^{\varepsilon}$-(lithocholoyl))-GLP-1(7-38);

$Arg^{26,34}Lys^{36}(N^{\varepsilon}$-(lithocholoyl))-GLP-1(7-39); and

$Gly^{8}Arg^{26,34}Lys^{36}(N^{\varepsilon}$-(lithocholoyl))-GLP-1(7-39).

23. A derivative of an analog of GLP-1(7-36), GLP-1(7-37), GLP-1(7-38), or GLP-1(7-39), comprising the substitution of Gly at position 37 with Ala, Ser, Thr, Leu, Ile, Val, Glu, Asp, or Lys, wherein the derivative is optionally in the form of (a) a C-1-6-ester thereof, (b) amide, C-1-6-alkylamide, or C-1-6-dialkylamide thereof and/or (c) a pharmaceutically acceptable salt thereof, provided that

A. the derivative of the GLP-1 analog contains only one or two Lys,

B. the ε-amino group of one or both Lys is substituted with a lipophilic substituent optionally via a spacer,

C. the total number of different amino acids between the derivative of the GLP-1 analog and the corresponding native form of GLP-1 does not exceed six.

24. A derivative of an analog of GLP-1(7-36), GLP-1(7-37), GLP-1(7-38), or GLP-1(7-39), comprising the substitution of Arg at position 38 with His, Glu, Asp, or Lys, wherein the derivative is optionally in the form of (a) a C-1-6-ester thereof, (b) amide, C-1-6-alkylamide, or C-1-6-dialkylamide thereof and/or (c) a pharmaceutically acceptable salt thereof, provided that

A. the derivative of the GLP-1 analog contains only one or two Lys,

B. the ε-amino group of one or both Lys is substituted with a lipophilic substituent optionally via a spacer,

C. the total number of different amino acids between the derivative of the GLP-1 analog and the corresponding native form of GLP-1 does not exceed six,

D. the derivative of an analog of GLP-1(7-36), GLP-1(7-37), GLP-1(7-38), or GLP-1(7-39), is not selected from:

$Arg^{26,34}Lys^{38}(N^{\varepsilon}$-(ω–carboxynonadecanoyl))-GLP-1(7-38)-OH,

$Arg^{26,34}Lys^{38}(N^{\varepsilon}$-(ω–carboxyheptadecanoyl))-GLP-1(7-38)-OH,

$Arg^{26,34}Lys^{38}(N^{\varepsilon}$-(ω–carboxyundecanoyl))-GLP-1(7-38)-OH,

$Arg^{26,34}Lys^{38}(N^{\varepsilon}$-(ω–carboxyheptanoyl))-GLP-1(7-38)-OH,

$Glu^{22,23,30}Arg^{26,34}Lys^{38}(N^{\varepsilon}$-(γ-glutamyl($N^{\alpha}$-tetradecanoyl)))-GLP-1(7-38)-OH,

$Glu^{23,26}Arg^{34}Lys^{38}(N^{\varepsilon}$-(γ-glutamyl($N^{\alpha}$-tetradecanoyl)))-GLP-1(7-38)-OH,

$Arg^{26,34}Lys^{38}(N^{\varepsilon}$-(ω-carboxypentadecanoyl))-GLP-1(7-38)-OH,

$Arg^{26,34}Lys^{38}(N^{\varepsilon}$-(γ-glutamyl($N^{\alpha}$-tetradecanoyl)))-GLP-1(7-38)-OH,

$Arg^{26,34}Lys^{38}(N^{\varepsilon}$-(ω-carboxypentadecanoyl))-GLP-1(7-38)-OH,

$Arg^{26,34}Lys^{38}(N^{\varepsilon}$-(γ-glutamyl($N^{\alpha}$-hexadecanoyl)))-GLP-1(7-38)-OH,

$Arg^{18,23,26,30,34}Lys^{38}(N^{\varepsilon}$-hexadecanoyl)-GLP-1(7-38)-OH,

$Arg^{26,34}Lys^{38}(N^{\varepsilon}$-(ω-carboxytridecanoyl))-GLP-1(7-38)-OH,

$Arg^{26,34}Lys^{38}(N^{\varepsilon}$-(γ-glutamyl($N^{\alpha}$-octadecanoyl)))-GLP-1(7-38)-OH,

$Arg^{26,34}Lys^{38}(N^{\varepsilon}$-tetradecanoyl)-GLP-1(7-38);

$Arg^{26,34}Lys^{38}(N^{\varepsilon}$-(ω–carboxynonadecanoyl))-GLP-1(7-38);

$Arg^{26,34}Lys^{38}(N^{\varepsilon}$-(7-deoxycholoyl))-GLP-1(7-38);

$Arg^{26,34}Lys^{38}(N^{\varepsilon}$-(choloyl))-GLP-1(7-38);

$Arg^{26,34}Lys^{38}(N^{\varepsilon}$-(lithocholoyl))-GLP-1(7-37); and

$Arg^{26,34}Lys^{38}(N^{\varepsilon}$-(lithocholoyl))-GLP-1(7-38).

25. The derivative of the analog of GLP-1(7-36), GLP-1(7-37), GLP-1(7-38), OR GLP-1(7-39) of any of claims 3-24, further comprising the substitution of Lys at position 26 with Arg.

26. The derivative of the analog of GLP-1(7-36), GLP-1(7-37), GLP-1(7-38), OR GLP-1(7-39) of any of claims 3-24, further comprising the substitution of Lys at position 34 with Arg.

27. The derivative of the analog of GLP-1(7-36), GLP-1(7-37), GLP-1(7-38), OR GLP-1(7-39) of any of claims 3-24, further comprising the substitution of Lys at positions 26 and 34 with Arg.

28. The derivative of GLP-1 analog of any of claims 1-27, wherein only one Lys is present.

29. The derivative of GLP-1 analog of claim 28, wherein Lys is at the carboxy-terminus.

30. The derivative of GLP-1 analog of any of claims 1-29, wherein Glu or Asp is adjacent to Lys.

31. The derivative of GLP-1 analog of any of claims 1-30, wherein the total number of different amino acids between the derivative of the GLP-1 analog and the corresponding native form of GLP-1 is five.

32. The derivative of GLP-1 analog of any of claims 1-30, wherein the total number of different amino acids between the derivative of the GLP-1 analog and the corresponding native form of GLP-1 is four.

33. The derivative of GLP-1 analog of any of claims 1-30, wherein the total number of different amino acids between the derivative of the GLP-1 analog and the corresponding native form of GLP-1 is three.

34. The derivative of GLP-1 analog of any of claims 1-30, wherein the total number of different amino acids between the derivative of the GLP-1 analog and the corresponding native form of GLP-1 is two.

35. The derivative of GLP-1 analog of any of claims 1-30, wherein the total number of different amino acids between the derivative of the GLP-1 analog and the corresponding native form of GLP-1 is one.

36. The derivative of GLP-1 analog of claim 1 or any of claims 28-35, wherein the amino acids at positions 37-45 are absent.

37. The derivative of GLP-1 analog of claim 1 or any of claims 28-35, wherein the amino acids at positions 38-45 are absent.

38. The derivative of GLP-1 analog of claim 1 or any of claims 28-35, wherein the amino acids at positions 39-45 are absent.

39. The derivative of GLP-1 analog of claim 1 or any of claims 28-38, wherein Xaa at position 8 is Ala, Gly, Ser, Thr, or Val.

40. The derivative of GLP-1 analog of claim 1 or any of claims 28-39, wherein Xaa at position 9 is Glu.

41. The derivative of GLP-1 analog of claim 1 or any of claims 28-40, wherein Xaa at position 11 is Thr.

42. The derivative of GLP-1 analog of claim 1 or any of claims 28-41, wherein Xaa at position 14 is Ser.

43. The derivative of GLP-1 analog of claim 1 or any of claims 28-42, wherein Xaa at position 16 is Val.

44. The derivative of GLP-1 analog of claim 1 or any of claims 28-43, wherein Xaa at position 17 is Ser.

45. The derivative of GLP-1 analog of claim 1 or any of claims 28-44, wherein Xaa at position 18 is Ser, Lys, Glu, or Asp.

46. The derivative of GLP-1 analog of claim 1 or any of claims 28-45, wherein Xaa at position 19 is Tyr, Lys, Glu, or Asp.

47. The derivative of GLP-1 analog of claim 1 or any of claims 28-46, wherein Xaa at position 20 is Leu,, Lys, Glu, or Asp.

48. The derivative of GLP-1 analog of claim 1 or any of claims 28-47, wherein Xaa at position 21 is Glu, Lys, or Asp.

49. The derivative of GLP-1 analog of claim 1 or any of claims 28-48, wherein Xaa at position 22 is Gly, Glu, Asp, or Lys.

50. The derivative of GLP-1 analog of claim 1 or any of claims 28-49, wherein Xaa at position 23 is Gln, Glu, Asp, or Lys.

51. The derivative of GLP-1 analog of claim 1 or any of claims 28-50, wherein Xaa at position 24 is Ala, Glu, Asp, or Lys.

52. The derivative of GLP-1 analog of claim 1 or any of claims 28-51, wherein Xaa at position 25 is Ala, Glu, Asp, or Lys.

53. The derivative of GLP-1 analog of claim 1 or any of claims 28-52, wherein Xaa at position 26 is Lys, Glu, Asp, or Arg.

54. The derivative of GLP-1 analog of claim 1 or any of claims 28-53, wherein Xaa at position 27 is Glu, Asp, or Lys.

55. The derivative of GLP-1 analog of claim 1 or any of claims 28-54, wherein Xaa at position 30 is Ala, Glu, Asp, or Lys.

56. The derivative of GLP-1 analog of claim 1 or any of claims 28-55, wherein Xaa at position 31 is Trp, Glu, Asp, or Lys.

57. The derivative of GLP-1 analog of claim 1 or any of claims 28-56, wherein Xaa at position 32 is Leu, Glu, Asp, or Lys.

58. The derivative of GLP-1 analog of claim 1 or any of claims 28-57, wherein Xaa at position 33 is Val, Glu, Asp, or Lys.

59. The derivative of GLP-1 analog of claim 1 or any of claims 28-58, wherein Xaa at position 34 is Lys, Arg, Glu, or Asp.

60. The derivative of GLP-1 analog of claim 1 or any of claims 28-59, wherein Xaa at position 35 is Gly, Glu, Asp, or Lys.

61. The derivative of GLP-1 analog of claim 1 or any of claims 28-60, wherein Xaa at position 36 is Arg, Lys, Glu, or Asp.

62. The derivative of GLP-1 analog of claim 1 or any of claims 28-61, wherein Xaa at position 37 is Gly, Glu, Asp, or Lys.

63. The derivative of GLP-1 analog of claim 1 or any of claims 28-62, wherein Xaa at position 38 is Arg or Lys.

64. The derivative of GLP-1 analog of claim 1, wherein Xaa at position 26 is Arg, each of Xaa at positions 37-45 is deleted, and each of the other Xaa is the amino acid in native GLP-1(7-36).

65. The derivative of GLP-1 analog of claim 1, wherein Xaa at position 26 is Arg, each of Xaa at positions 38-45 is deleted, and each of the other Xaa is the amino acid in native GLP-1(7-37).

66. The derivative of GLP-1 analog of claim 1, wherein Xaa at position 26 is Arg, each of Xaa at positions 39-45 is deleted, and each of the other Xaa is the amino acid in native GLP-1(7-38).

67. The derivative of GLP-1 analog of claim 1, wherein Xaa at position 34 is Arg, each of Xaa at positions 37-45 is deleted, and each of the other Xaa is the amino acid in native GLP-1(7-36).

68. The derivative of GLP-1 analog of claim 1, wherein Xaa at position 34 is Arg, each of Xaa at positions 38-45 is deleted, and each of the other Xaa is the amino acid in native GLP-1(7-37).

69. The derivative of GLP-1 analog of claim 1, wherein Xaa at position 34 is Arg, each of Xaa at positions 39-45 is deleted, and each of the other Xaa is the amino acid in native GLP-1(7-38).

70. The derivative of GLP-1 analog of claim 1, wherein Xaa at positions 26 and 34 is Arg, Xaa at position 36 is Lys, each of Xaa at positions 37-45 is deleted, and each of the other Xaa is the amino acid in native GLP-1(7-36).

71. The derivative of GLP-1 analog of claim 1, wherein Xaa at positions 26 and 34 is Arg, Xaa at position 36 is Lys, each of Xaa at positions 38-45 is deleted, and each of the other Xaa is the amino acid in native GLP-1(7-37).

72. The derivative of GLP-1 analog of claim 1, wherein Xaa at positions 26 and 34 is Arg, Xaa at position 36 is Lys, each of Xaa at positions 39-45 is deleted, and each of the other Xaa is the amino acid in native GLP-1(7-38).

73. The derivative of GLP-1 analog of claim 1, wherein Xaa at positions 26 and 34 is Arg, Xaa at position 38 is Lys, each of Xaa at positions 39-45 is deleted, and each of the other Xaa is the amino acid in native GLP-1(7-38).

74. The derivative of GLP-1 analog of claim 1, wherein Xaa at position 8 is Thr, Ser, Gly or Val, Xaa at position 37 is Glu, Xaa at position 36 is Lys, each of Xaa at positions 38-45 is deleted, and each of the other Xaa is the amino acid in native GLP-1(7-37).

75. The derivative of GLP-1 analog of claim 1, wherein Xaa at position 8 is Thr, Ser, Gly or Val, Xaa at position 37 is Glu, Xaa at position 36 is Lys, each of Xaa at positions 39-45 is deleted, and each of the other Xaa is the amino acid in native GLP-1(7-38).

76. The derivative of GLP-1 analog of claim 1, wherein Xaa at position 8 is Thr, Ser, Gly or Val, Xaa at position 37 is Glu, Xaa at position 38 is Lys, each of Xaa at positions 39-45 is deleted, and each of the other Xaa is the amino acid in native GLP-1(7-38).

77. The derivative of GLP-1 analog of claim 1, wherein Xaa at position 18, 23 or 27 is Lys, and Xaa at positions 26 and 34 is Arg, each of Xaa at positions 37-45 is deleted, and each of the other Xaa is the amino acid in native GLP-1(7-36).

78. The derivative of GLP-1 analog of claim 1, wherein Xaa at position 18, 23 or 27 is Lys, and Xaa at positions 26 and 34 is Arg, each of Xaa at positions 38-45 is deleted, and each of the other Xaa is the amino acid in native GLP-1(7-37).

79. The derivative of GLP-1 analog of claim 1, wherein Xaa at position 18, 23 or 27 is Lys, and Xaa at positions 26 and 34 is Arg, each of Xaa at positions 39-45 is deleted, and each of the other Xaa is the amino acid in native GLP-1(7-38).

80. The derivative of GLP-1 analog of claim 1, wherein Xaa at position 8 is Thr, Ser, Gly, or Val, Xaa at position 18, 23 or 27 is Lys, and Xaa at position 26 and 34 is Arg, each of Xaa at positions 37-45 is deleted, and each of the other Xaa is the amino acid in native GLP-1(7-36).

81. The derivative of GLP-1 analog of claim 1, wherein Xaa at position 8 is Thr, Ser, Gly, or Val, Xaa at position 18, 23 or 27 is Lys, and Xaa at position 26 and 34 is Arg, each of Xaa at positions 38-45 is deleted, and each of the other Xaa is the amino acid in native GLP-1(7-37).

82. The derivative of GLP-1 analog of claim 1, wherein Xaa at position 8 is Thr, Ser, Gly, or Val, Xaa at position 18, 23 or 27 is Lys, and Xaa at position 26 and 34 is Arg, each of Xaa at positions 39-45 is deleted, and each of the other Xaa is the amino acid in native GLP-1(7-38).

83. The derivative of GLP-1 analog of any of claims 1-82, wherein the lipophilic substituent is attached to the N-terminal amino acid residue.

84. The derivative of GLP-1 analog of any of claims 1-82, wherein the lipophilic substituent is attached to the C-terminal amino acid residue.

85. The derivative of GLP-1 analog of any of claims 1-82, wherein the lipophilic substituent is attached to an amino acid residue which is not the N-terminal or C-terminal amino acid residue.

86. The derivative of GLP-1 analog of any one of the preceding claims, wherein the lipophilic substituent comprises from 4 to 40 carbon atoms, more preferred from 8 to 25 carbon atoms.

87. The derivative of GLP-1 analog of any one of the preceding claims, wherein a lipophilic substituent is attached to an amino acid residue in such a way that a carboxyl group of the lipophilic substituent forms an amide bond with the ε-amino group of Lys.

88. The derivative of GLP-1 analog of any one of the preceding claims, wherein the lipophilic substituent is attached to the parent peptide by means of a spacer.

89. The derivative of GLP-1 analog of claim 88, wherein the spacer is an unbranched alkane α,ω-dicarboxylic acid group having from 1 to 7 methylene groups, preferably two methylene groups, which form a bridge between an amino group of the parent peptide and an amino group of the lipophilic substituent.

90. The derivative of GLP-1 analog of claim 88, wherein the spacer is an amino acid residue except Cys, or a dipeptide such as Gly-Lys.

91. The derivative of GLP-1 analog of claim 90, wherein the ε-amino group of Lys forms an amide bond with a carboxylic group of the amino acid residue or dipeptide spacer, and an amino group of the amino acid residue or dipeptide spacer forms an amide bond with a carboxyl group of the lipophilic substituent.

92. The derivative of GLP-1 analog of any one of the preceding claims, wherein the lipophilic substituent comprises a partially or completely hydrogenated cyclopentanophenathrene skeleton.

93. The derivative of GLP-1 analog of any of the claims 1-86, wherein the lipophilic substituent is an straight-chain or branched alkyl group.

94. The derivative of GLP-1 analog of any of the claims 1-86 wherein the lipophilic substituent is the acyl group of a straight-chain or branched fatty acid.

95. The derivative GLP-1 analog of claim 94 wherein the acyl group is selected from the group comprising $CH_3(CH_2)_nCO$-, wherein n is 4 to 38, preferably $CH_3(CH_2)_6CO$-, $CH_3(CH_2)_8CO$-, $CH_3(CH_2)_{10}CO$-, $CH_3(CH_2)_{12}CO$-, $CH_3(CH_2)_{14}CO$-, $CH_3(CH_2)_{16}CO$-, $CH_3(CH_2)_{18}CO$-, $CH_3(CH_2)_{20}CO$- and $CH_3(CH_2)_{22}CO$-.

96. The derivative of GLP-1 analog of any one of the claims 1-86 wherein the lipophilic substituent is an acyl group of a straight-chain or branched alkane α,ω-dicarboxylic acid.

97. The derivative of GLP-1 analog of claim 96 wherein the acyl group is selected from the group comprising $HOOC(CH_2)_mCO$-, wherein m is from 4 to 38, preferably from 4 to 24, more preferred selected from the group comprising $HOOC(CH_2)_{14}CO$-, $HOOC(CH_2)_{16}CO$-, $HOOC(CH_2)_{18}CO$-, $HOOC(CH_2)_{20}CO$- and $HOOC(CH_2)_{22}CO$-.

98. The derivative of GLP-1 analog of any one of the claims 1-86, wherein the lipophilic substituent is a group of the formula $CH_3(CH_2)_p((CH_2)_qCOOH)CHNH\text{-}CO(CH_2)_2CO$-, wherein p and q are integers and p+q is an integer of from 8 to 33, preferably from 12 to 28.

99. The derivative of GLP-1 analog of any one of the claims 1-86, wherein the lipophilic substituent is a group of the formula $CH_3(CH_2)_rCO$-NHCH(COOH)$(CH_2)_2CO$-, wherein r is an integer of from 10 to 24.

100. The derivative of GLP-1 analog of any one of the claims 1-86, wherein the lipophilic substituent is a group of the formula $CH_3(CH_2)_sCO$-NHCH($(CH_2)_2COOH$)CO-, wherein s is an integer of from 8 to 24.

101. The derivative of GLP-1 analog of any one of the claims 1-86, wherein the lipophilic substituent is a group of the formula -NHCH(COOH)$(CH_2)_4$NH-$CO(CH_2)_uCH_3$, wherein u is an integer of from 8 to 18.

102. The derivative of GLP-1 analog of any one of the claims 1-86, wherein the lipophilic substituent is a group of the formula -NHCH(COOH)$(CH_2)_4$NH-COCH($(CH_2)_2COOH$)NH-$CO(CH_2)_wCH_3$, wherein w is an integer of from 10 to 16.

103. The derivative of GLP-1 analog of any one of the claims 1-86, wherein the lipophilic substituent is a group of the formula -NHCH(COOH)$(CH_2)_4$NH-$CO(CH_2)_2$CH(COOH)NH-$CO(CH_2)_xCH_3$, wherein x is an integer of from 10 to 16.

104. The derivative of GLP-1 analog of any one of the claims 1-86, wherein the lipophilic substituent is a group of the formula -NHCH(COOH)$(CH_2)_4$NH-$CO(CH_2)_2$CH(COOH)NH-$CO(CH_2)_yCH_3$, wherein y is zero or an integer of from 1 to 22.

105. A pharmaceutical composition comprising a derivative of GLP-1 analog of any of claims 1-104 and a pharmaceutically acceptable vehicle or carrier.

106. The pharmaceutical composition of claim 105, further comprising another antidiabetic agent.

107. The pharmaceutical composition of claim 106, wherein the antidiabetic agent is an insulin, more preferably human insulin.

108. The pharmaceutical composition of claim 106, wherein the antidiabetic agent is a hypoglaemic agent.

109. Use of a derivative of GLP-1 analog of any of claims 1-104 for the preparation of a medicament which has a protracted profile of action relative to GLP-1(7-37).

110. Use of a derivative of GLP-1 analog of any of claims 1-104 for the preparation of a medicament with a protracted profile of action for the treatment of non-insulin dependent diabetes mellitus.

111. Use of a derivative of GLP-1 analog of any of claims 1-104 for the preparation of a medicament with a protracted profile of action for the treatment of insulin dependent diabetes mellitus.

112. Use of a derivative of GLP-1 analog of any of claims 1-104 for the preparation of a medicament with a protracted profile of action for the treatment of obesity.

113. A method of treating insulin dependent or non-insulin dependent diabetes mellitus in a patient in need of such a treatment, comprising administering to the patient a therapeutically effective amount of a derivative of GLP-1 analog of any of claims 1-104 together with a pharmaceutically acceptable carrier.

114. A method of treating obesity in a patient in need of such a treatment, comprising administering to the patient a therapeutically effective amount of the derivative of GLP-1 analog of any of claims 1-104.

NOVO NORDISK A/S

INTERNATIONAL SEARCH REPORT

International application No.
PCT/DK 99/00082

A. CLASSIFICATION OF SUBJECT MATTER

IPC6: C07K 14/605, A61K 38/26
According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC6: C07K, A61K

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

SE,DK,FI,NO classes as above

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

WPI, EPODOC, MEDLINE, EMBASE, CA

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
P,X	WO 9808871 A1 (NOVO NORDISK A/S), 5 March 1998 (05.03.98), See examples --	1-114
X	US 5614492 A (JOEL F. HABENER), 25 March 1997 (25.03.97), column 3, line 28 - column 4, line 10; column 6, line 56 - column 7, line 51 --	1-114
X	WO 9629342 A1 (NOVO NORDISK A/S), 26 Sept 1996 (26.09.96), See esp. page 2-5 and claim 6 --	1-114

[X] Further documents are listed in the continuation of Box C. [X] See patent family annex.

* Special categories of cited documents:
"A" document defining the general state of the art which is not considered to be of particular relevance
"E" erlier document but published on or after the international filing date
"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)
"O" document referring to an oral disclosure, use, exhibition or other means
"P" document published prior to the international filing date but later than the priority date claimed
"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
"X" document of particular relevance: the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
"Y" document of particular relevance: the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art
"&" document member of the same patent family

Date of the actual completion of the international search	Date of mailing of the international search report
15 April 1999	05 -05- 1999
Name and mailing address of the ISA/ Swedish Patent Office Box 5055, S-102 42 STOCKHOLM Facsimile No. +46 8 666 02 86	Authorized officer Hampus Rystedt Telephone No. +46 8 782 25 00

Form PCT/ISA/210 (second sheet) (July 1992)

INTERNATIONAL SEARCH REPORT

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PCT/DK 99/00082

C (Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	EP 0708179 A2 (ELI LILLY AND COMPANY), 24 April 1996 (24.04.96), See esp. page 3, line 26 - line 39	1,2
A	--	3-114
A	US 5545618 A (DOUGLAS I. BUCKLEY ET AL), 13 August 1996 (13.08.96), column 2, line 50 - column 4, line 10	1-114
A	--	
A	WO 9011296 A1 (THE GENERAL HOSPITAL CORPORATION), 4 October 1990 (04.10.90), page 5, line 18 - page 7, line 16	1-114
A	--	
A	WO 8706941 A1 (THE GENERAL HOSPITAL CORPORATION), 19 November 1987 (19.11.87), page 7, line 18 - page 8, line 13; page 9, line 17 - line 25	1-114
A	--	
A	WO 9531214 A1 (LONDON HEALTH ASSOCIATION), 23 November 1995 (23.11.95)	105-107
A	--	
A	US 5631224 A (SUAD EFENDIC ET AL), 20 May 1997 (20.05.97), column 3, line 5 - line 19	108
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Box I Observations where certain claims were found unsearchable (Continuation of item 1 of first sheet)

This international search report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1. [X] Claims Nos.: 113,114
because they relate to subject matter not required to be searched by this Authority, namely:

Although claims 113 and 114 relate to methods for treatment of the human body, a search has been carried out based on the alleged effects of the claimed compounds.

2. [ ] Claims Nos.:
because they relate to parts of the international application that do not comply with the prescribed requirements to such an extent that no meaningful international search can be carried out, specifically:

3. [ ] Claims Nos.:
because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

Box II Observations where unity of invention is lacking (Continuation of item 2 of first sheet)

This International Searching Authority found multiple inventions in this international application, as follows:

See next sheet

1. [ ] As all required additional search fees were timely paid by the applicant, this international search report covers all searchable claims.

2. [X] As all searchable claims could be searched without effort justifying an additional fee, this Authority did not invite payment of any additional fee.

3. [ ] As only some of the required additional search fees were timely paid by the applicant, this international search report covers only those claims for which fees were paid, specifically claims Nos.:

4. [ ] No required additional search fees were timely paid by the applicant. Consequently, this international search report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:

Remark on Protest

[ ] The additional search fees were accompanied by the applicant's protest.

[ ] No protest accompanied the payment of additional search fees.

The present application relates to a large number of peptide derivatives technically linked together by their homologies to GLP-1 and the presence of a lipophilic substituent on at least one Lys-residue. The lipophilic substituent is claimed to give the compounds a protracted profile of action. Derivatives of GLP-1, with the same effects as the claimed derivatives, are well known in the prior art, see e.g. US, 5614492, A. The method of introducing lipophilic substituents in order to obtain a protracted profile of action is also known, see WO, 9629342, A1.
No new effect of the claimed GLP-1 derivatives has been shown to arise from a common technical feature of the derivatives, structural or other, which defines a contribution over the prior art. Each new GLP-1 derivative is therefore considered to be a unique invention according to PCT Rule 13.1 and 13.2.

As all GLP-1 derivatives could be searched within one fee, the exact number of inventions has not been calculated.

INTERNATIONAL SEARCH REPORT

Information on patent family members

02/03/99

International application No.
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02/03/99

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PCT/DK 99/00082

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