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Baca et al.

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(54) **ANTI-VEGF ANTIBODIES**
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(*) Notice: Subject to any disclaimer, the term of this
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(58) **Field of Classification Search** **530/387.1,**
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(57) **ABSTRACT**

Humanized and variant anti-VEGF antibodies and various
uses therefor are disclosed. The anti-VEGF antibodies have
strong binding affinities for VEGF; inhibit VEGF-induced
proliferation of endothelial cells in vitro; and inhibit tumor
growth in vivo.

22 Claims, 16 Drawing Sheets

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1          10          20          30          40
A4.6.1  EIQLVQSGPELKQPGETVRISCASGYTFTNYGMNWVKQA
      * * * * * * * * * *
F(ab)-12 EVQLVESGGGLVQPGGSLRLSCAASGYTFTNYGMNWVRQA
      * * * * *
humIII  EVQLVESGGGLVQPGGSLRLSCAASGFTTSSYAMSWVRQA

          50 a          60          70          80
A4.6.1  PGKGLKWMGWINTYTGEPTYAADFKRRFTFSLETSASTAYL
      * * * * * * * *
F(ab)-12 PGKGLEWVGWINTYTGEPTYAADFKRRFTFSLDTSKSTAYL
      * * * * * * * *
humIII  PGKGLEWVSVISGDGGSTYADSVKGRFTISRDNSKNTLYL

          abc          90          110
A4.6.1  QISNLKNDTATYFCAKYPHYYGSSHWYFDVWGAGTTVTVSS (SEQ.ID NO:9)
      *** * * * * * * *
F(ab)-12 QMNSLRAEDTAVYYCAKYPHYYGSSHWYFDVWGQGTLVTVSS (SEQ.ID NO:7)
      * * * * *
humIII  QMNSLRAEDTAVYYCARG-----FDYWGQGTLVTVSS (SEQ.ID NO:11)

```

FIG. 1A

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1          10          20          30          40
A4.6.1  DIQMTQTTSSLSASLGDRVIISCSASQDISNYLNWYQQKP
      ** * * * *
F(ab)-12 DIQMTQSPSSLSASVGDRVTITCSASQDISNYLNWYQQKP
      * * * * *
humKI  DIQMTQSPSSLSASVGDRVTITCRASQDISNYLAWYQQKP

          50          60          70          80
A4.6.1  DGTVKVLIYFTSSSLHSGVPSRFSGSGSGTDYSLTISNLEP
      **** * * * *
F(ab)-12 GKAPKVLIYFTSSSLHSGVPSRFSGSGSGTDFTLTISLQF
      * * * *
humKI  GKAPKLLIYAASSLESGVPSRFSGSGSGTDFTLTISLQF

          90          100
A4.6.1  EDIATYYCQOYSTVPWTFGGGTKLEIKR (SEQ.ID NO:10)
      * * * *
F(ab)-12 EDFATYYCQOYSTVPWTFGQGTTKVEIKR (SEQ.ID NO:8)
      ***
humKI  EDFATYYCQOYNSLPWTFGQGTTKVEIKR (SEQ.ID NO:12)

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FIG. 1B

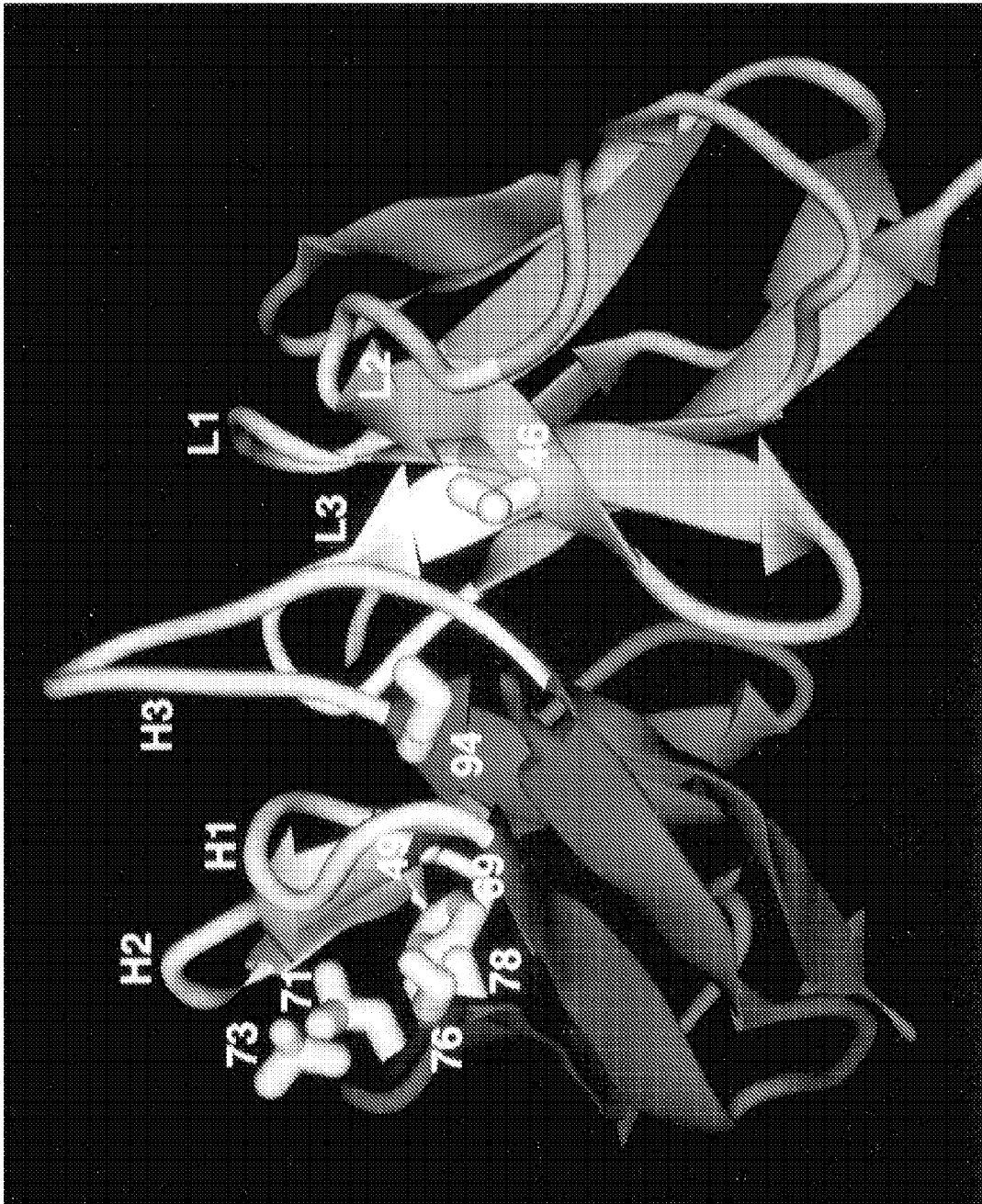


FIG. 2

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