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United States Patent [19]

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Tsuchiya et al.

[45] **Date of Patent:** **Aug. 18, 1998**

[54] **RESHAPED HUMAN TO HUMAN
INTERLEUKIN-6 RECEPTOR**

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[21] Appl. No.: **137,117**

[57] **ABSTRACT**

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A reshaped human antibody to the human IL-6R, compris-
ing:

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§ 102(e) Date: **Dec. 20, 1993**

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[30] **Foreign Application Priority Data**

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Feb. 19, 1992 [JP] Japan 4-032084

[51] **Int. Cl.⁶** **C07K 16/00**

[52] **U.S. Cl.** **530/387.3; 530/388.24;**
530/388.73

[58] **Field of Search** **530/387.3, 388.22,**
530/388.73

[56] **References Cited**

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(A) an L chain comprising,
(1) a human L chain C region, and
(2) an L chain V region comprising human L chain
framework regions (FRs), and mouse L chain
complementary determination regions (CDRS) of a
monoclonal antibody to the IL-6 receptor (IL-6R);
and
(B) an H chain comprising,
(1) a human H chain C region, and
(2) an H chain V region comprising human H chain
FRs, and mouse H chain CDRs of a monoclonal
antibody to the IL-6R.

Since major portion of the reshaped human antibody is
derived from a human antibody and the mouse CDRs which
are less immunogenic, the present reshaped human antibody
is less immunogenic to human, and therefor is promised for
therapeutic uses.

6 Claims, 24 Drawing Sheets

Fig. 1

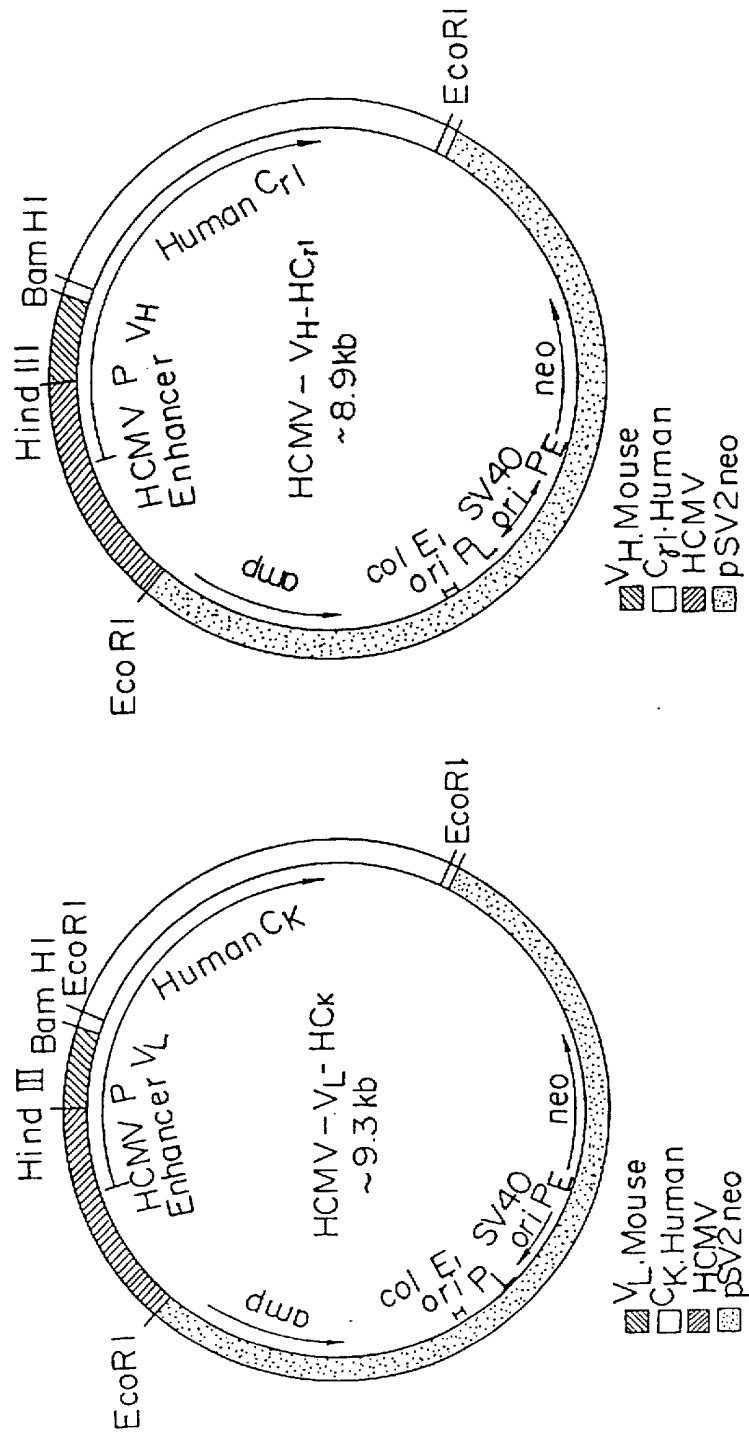


Fig. 2

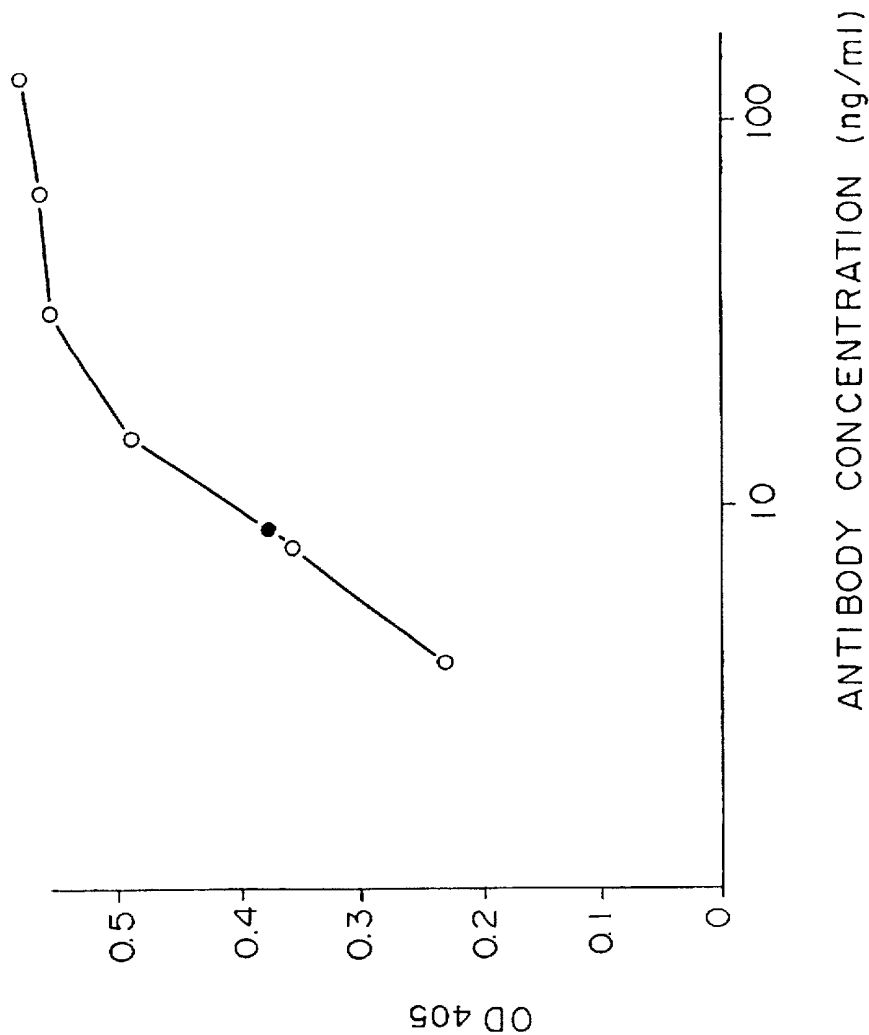


Fig. 3

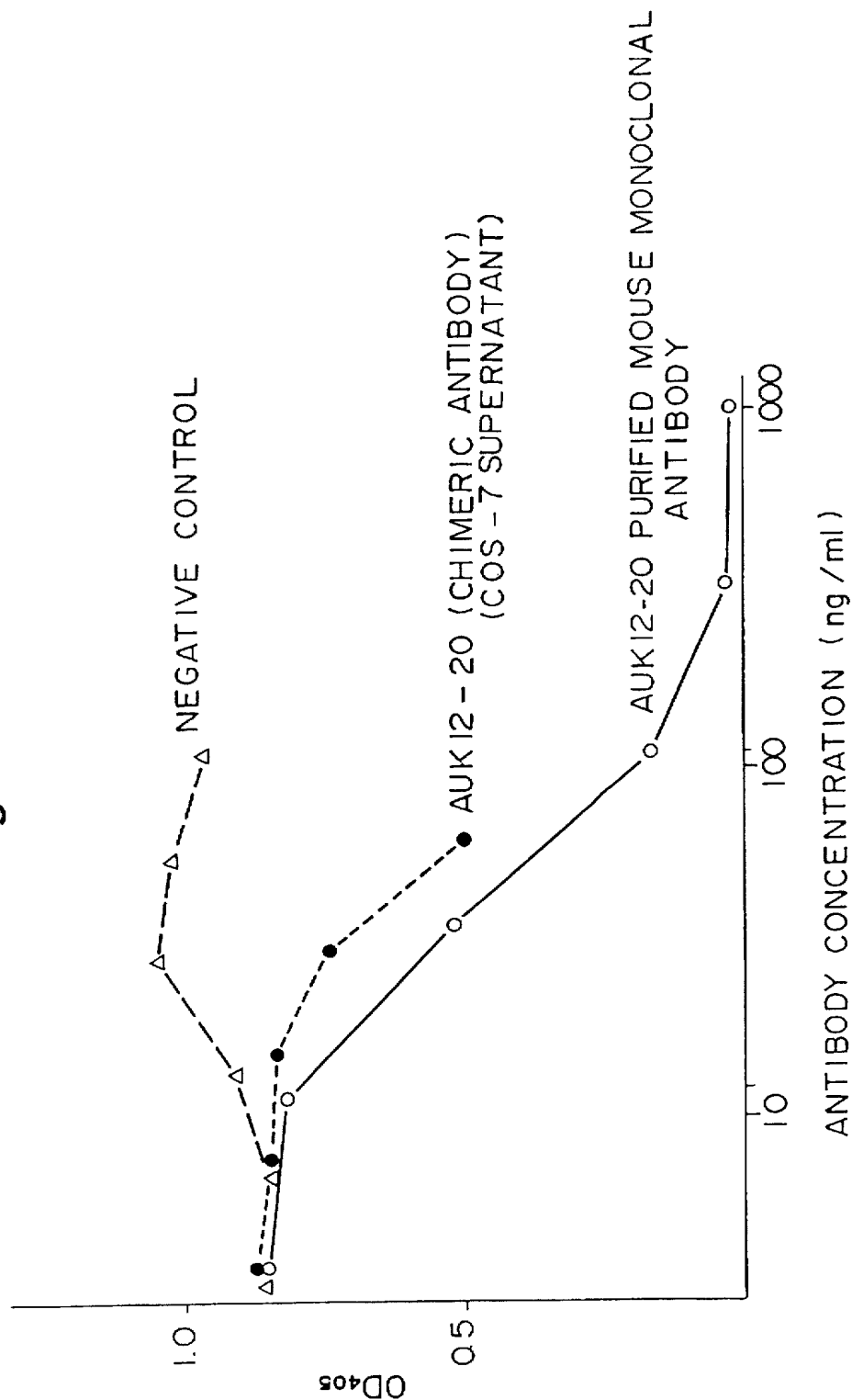
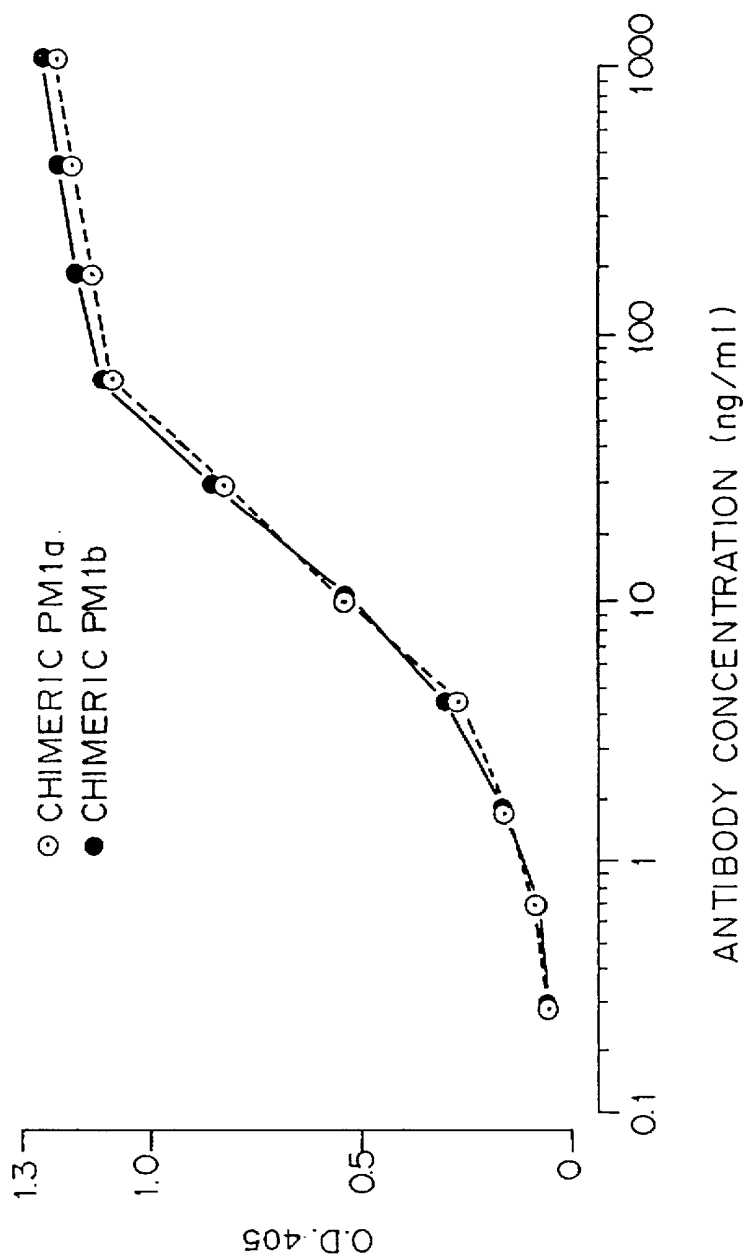


Fig. 4



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