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United States Patent [19]

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Tsuchiya et al.

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[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, comprising:

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PCT Pub. Date: **Nov. 12, 1992**

[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**

- (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.

[56] **References Cited**

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6 Claims, 24 Drawing Sheets

Fig. 1

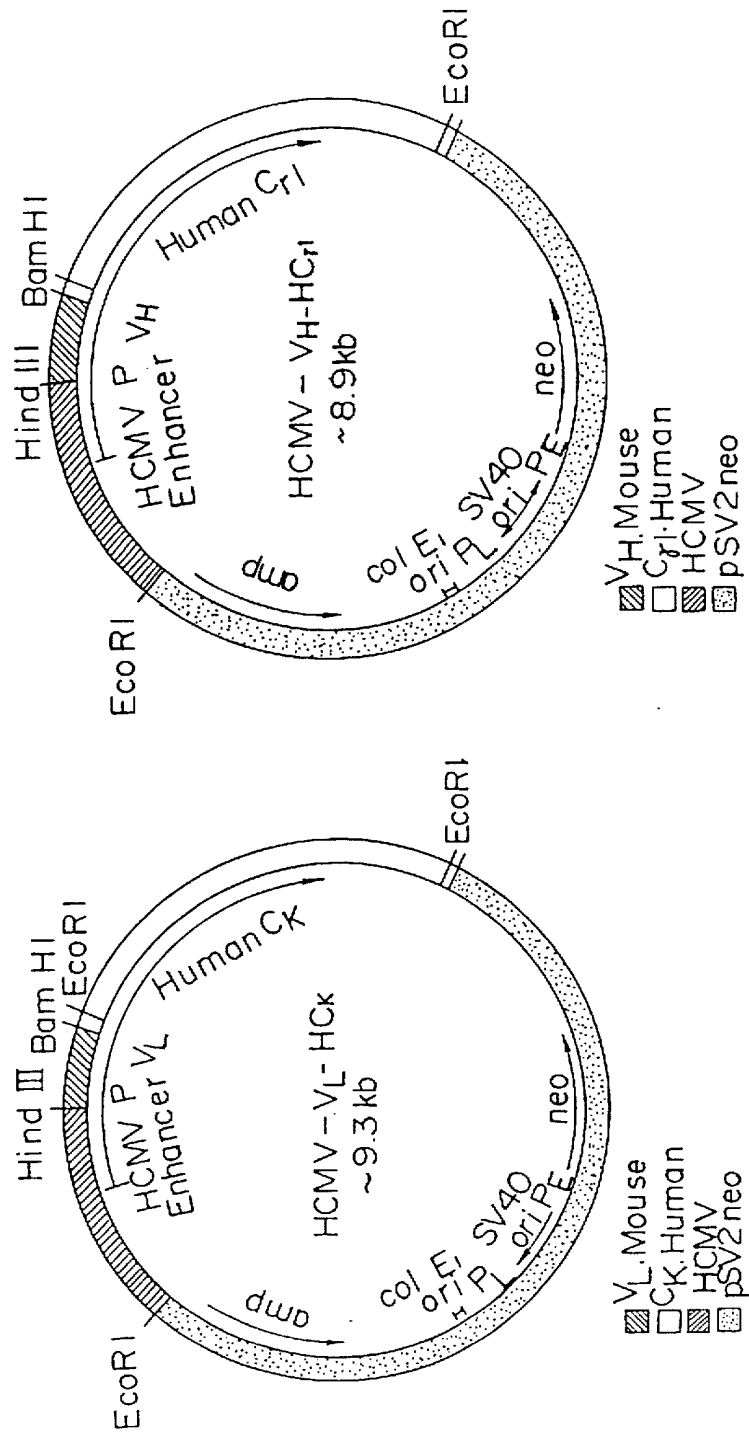


Fig. 2

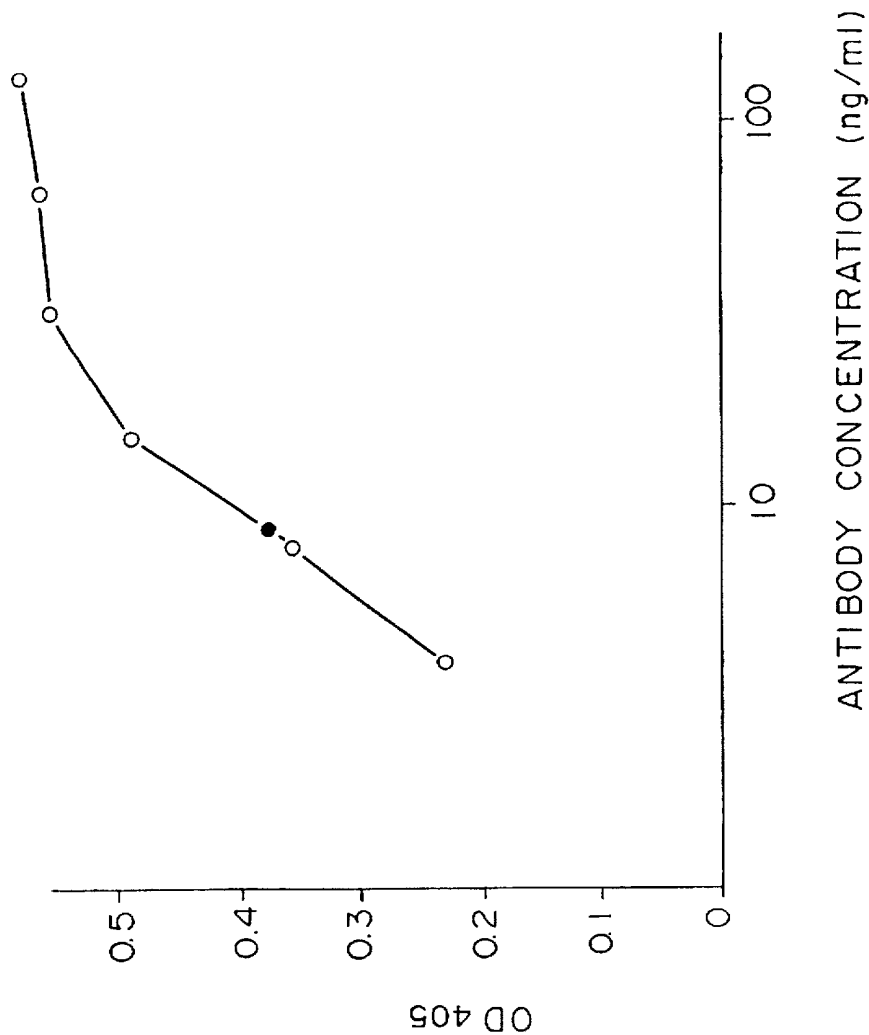


Fig. 3

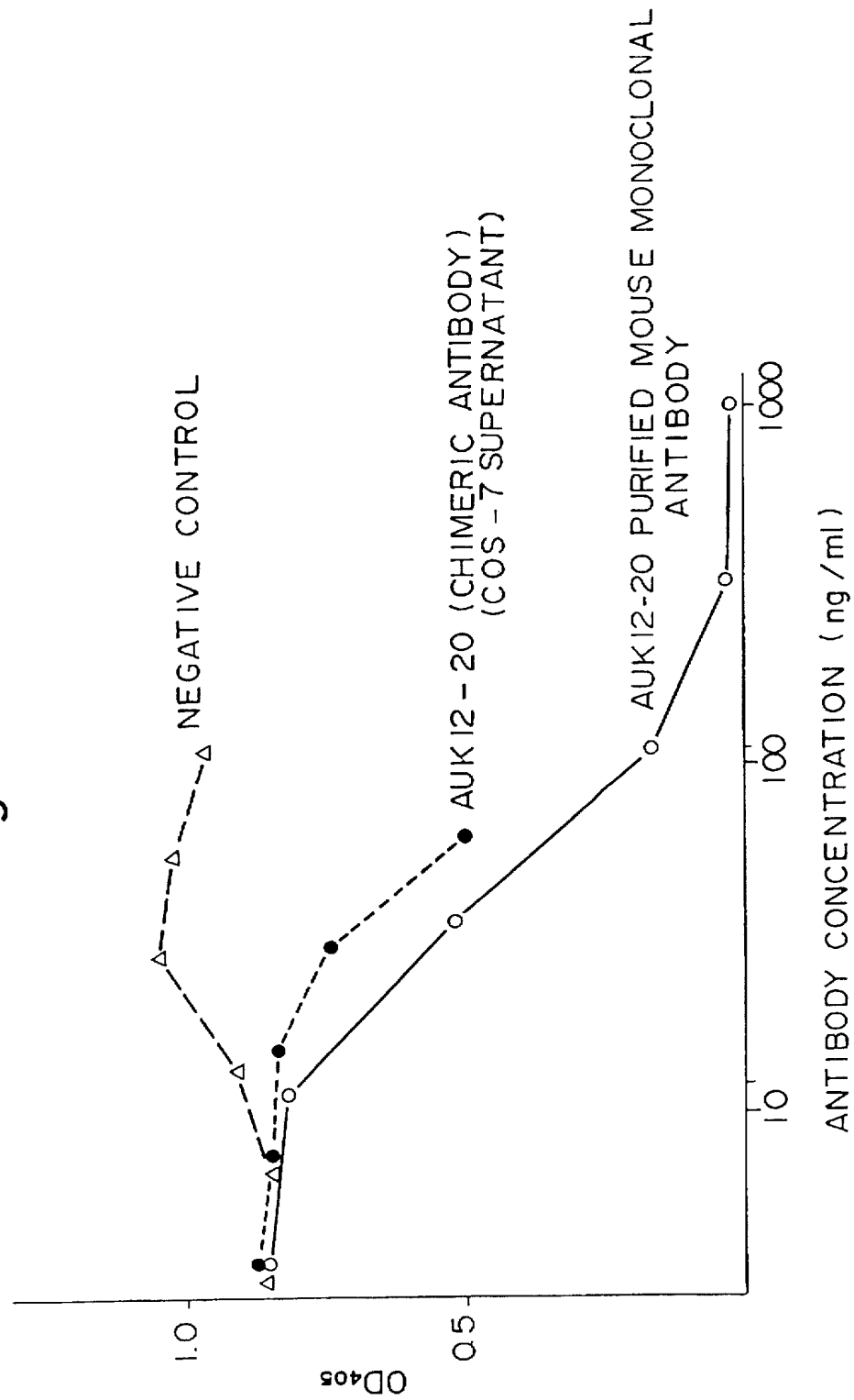
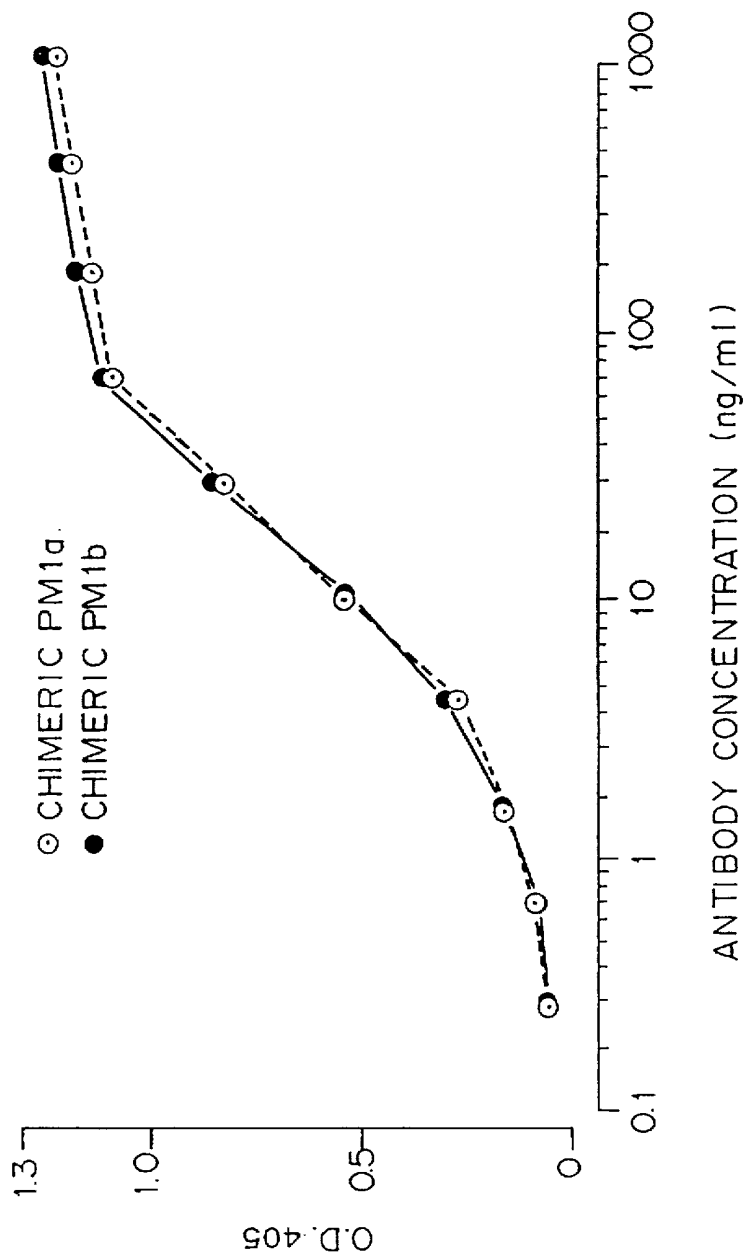


Fig. 4



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