

# United States Patent [19]

Moriguchi et al.

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[54] ADSORBENT COMPOSED OF POROUS BEADS OF CHITOSAN AND ADSORPTION METHOD USING SAME

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[57] ABSTRACT

Disclosed is an adsorbent composed of porous beads of uncrosslinked or crosslinked chitosan, wherein protein A or lectin is covalent-bonded through a bonding group to the amino group of glucosamine constituting the chitosan in the case of uncrosslinked chitosan or to the amino group of glucosamine constituting the chitosan and an amino group of a crosslinking agent in the case of crosslinked chitosan. The adsorbent composed of the chitosan porous beads to which protein A is bonded through a bonding group is used for absorption removal of interleukin 2 inhibitor. The adsorbent composed of the chitosan porous beads to which lectin is bonded through a combination group is used as an adsorbent for affinity chromatography.

An adsorbent composed of porous beads of uncrosslinked or crosslinked chitosan is used for adsorbing immunoglobulin. An adsorbent composed of uncrosslinked or crosslinked chitosan wherein an  $\omega$ -carboxylalkanoyl group and an acyl group have been introduced is used as a carrier for chromatography.

22 Claims, 4 Drawing Sheets