ABSTRACT

TITLE: ANTIBODIES WITH MODIFIED AFFINITY TO FCRN THAT PROMOTE ANTIGEN CLEARANCE

An objective of the present invention is to provide methods for facilitating antigen-binding molecule-mediated antigen uptake into cells, methods for facilitating the reduction of antigen concentration in plasma, methods for increasing the number of antigens to which a single antigen-binding molecule can bind, methods for improving pharmacokinetics of antigen-binding molecules, antigen-binding molecules improved for facilitated antigen uptake into cells, antigen-binding molecules capable of facilitating the reduction of antigen concentration in plasma, antigen-binding molecules capable of repeatedly binding to antigens, antigen-binding molecules with improved pharmacokinetics, pharmaceutical compositions comprising such an antigen-binding molecule, and methods for producing those described above.

The present inventors discovered that antigen uptake into cells is facilitated by an antibody having human FcRn-binding activity at the plasma pH and a lower antigen-binding activity at the early endosomal pH than at the plasma pH; such antibodies can increase the number of antigens to which a single antibody molecule can bind; the reduction of antigen in plasma can be facilitated by administering such an antibody; and antibody pharmacokinetics can be improved by using such antibodies.

No Fig.