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(54) Title: BINDING MOLECULES DERIVED FROM IMMUNOGLOBULINS WHICH DO NOT TRIGGER COMPLEMENT MEDIATED LYSIS

(57) Abstract

Disclosed are binding molecules which are recombinant polypeptides comprising: (i) a binding domain capable of binding a target molecule, and (ii) an effector domain having an amino acid sequence substantially homologous to all or part of a constant domain of a human immunoglobulin heavy chain; characterised in that the binding molecule is capable of binding the target molecule without triggering significant complement dependent lysis, or cell mediated destruction of the target, and more preferably wherein the effector domain is capable of specifically binding FcRn and/or FcγRIIb. These are generally based on chimeric domains which are derived from two or more human immunoglobulin heavy chain $C_H2$ domains. In preferred embodiments the regions 233–236, and 327–331, are modified, as are further residues to render the molecule null allotypic. The binding domain may derive from any source appropriate to the (usually clinical) application for the molecule and may be from e.g. an antibody; an enzyme; a hormone; a receptor; a cytokine or an antigen; a ligand and an adhesion molecule. Also disclosed are nucleic acids, host cells, production processes and materials, and uses e.g. to inhibit B cell activation; mast cell degranulation; phagocytosis, or to inhibit the binding of a second binding molecule to the target molecule. Pharmaceutical preparations are also disclosed.