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(54) **Title**: METHOD AND FORMULATION FOR REDUCING AGGREGATION OF A MACROMOLECULE UNDER PHYSIOLOGICAL CONDITIONS

(57) **Abstract**: The invention provides a method for reducing aggregation and inhibiting flocculation of a macromolecule, such as a protein, under physiological conditions, by the addition of 5% to 20% polyvinylpyrrolidone (PVP) with a molecular weight range of 2000 to 54,000 daltons. The invention further provides a method to minimize inflammation at the injection site during subcutaneous administration of a macromolecule. In further aspects, the invention provides pharmaceutical formulations for subcutaneous administration of a macromolecule, and methods of treating a CD20 positive cancer or an autoimmune disease, comprising administering a humanized anti-CD20 antibody in a pharmaceutical formulation of the invention. The invention further provides an in vitro dialysis method to evaluate the ability of an excipient to reduce aggregation of an antibody or other macromolecule under physiological conditions.