ABSTRACT

PHARMACEUTICAL FORMULATIONS FOR THE PROLONGED RELEASE OF ACTIVE PRINCIPLE(S) AND THEIR APPLICATIONS, ESPECIALLY THERAPEUTIC APPLICATIONS

The present invention relates to novel pharmaceutical formulations based on stable, fluid aqueous colloidal suspensions for the prolonged release of active principle(s), particularly protein active principle(s), and to the applications, especially therapeutic applications, of these formulations.

The object of the invention is to propose a fluid pharmaceutical formulation for the prolonged release of active principle(s) that makes it possible, after parenteral injection, to increase significantly the in vivo release time of a therapeutic protein while at the same time reducing the plasma concentration peak of the active protein, said formulation furthermore being stable on storage and also being biocompatible, biodegradable, non-toxic and non-immunogenic and having a good local tolerance.

The formulation according to the invention is an aqueous colloidal suspension of low viscosity based on submicronic particles of water-soluble biodegradable polymer PO carrying hydrophobic groups (HG), said particles being non-covalently associated with at least one active principle (AP) and forming a gelled deposit at the injection site, this gelling being caused by a protein present in the physiological medium.