ABSTRACT

COMPOSITIONS IN THE FORM OF AN INJECTABLE AQUEOUS SOLUTION COMPRISING AT LEAST HUMAN INSULIN A21G AND A PRANDIAL ACTION GLUCAGON SUPPRESSOR

The invention relates to a composition in the form of an injectable aqueous solution having a pH of 3.5 to 4.4 and comprising at least human insulin A21G and at least one prandial action glucagon suppressor. In one embodiment, the prandial action glucagon suppressor is selected from the group consisting of an amylin analogue, or an amylin receptor agonist, or a GLP-1 analogue, or a GLP-1 receptor agonist (GLP-1 RA). In one embodiment, the prandial action glucagon suppressor is an amylin analogue or an amylin receptor agonist. In one embodiment, the prandial action glucagon suppressor peptide is pramlintide. The invention also relates to a method for obtaining human insulin A21G comprising at least a step of reacting human insulin A21G, B31R, B32R (glargine insulin) with rat carboxypeptidase B, with an insulin/carboxypeptidase ratio of between 500 and 2000, at a pH of 7.5 to 8.5 and a temperature of 20 to 30°C for 10 to 20 hours.

No Figure