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(57) Abstract

PEG–IFN–β conjugates, where a PEG moiety is covalently bound to Cys^{17} of human IFN–β, are produced by a process of site specific PEGylation with a thiol reactive PEGylating agent. A pharmaceutical composition and a method for treating infections, tumors and autoimmune and inflammatory diseases are also provided. The invention further relates to a method for the stepwise attachment of PEG moieties in series to a polypeptide, and more particularly to IFN–β.

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