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CONSTRUCTION OF AN ACTIVE IMMUNOTOXIN WITH LOW SIDE EFFECTS

ABSTRACT

The present invention relates to various modified forms of Pseudomonas exotoxin exhibiting low toxicity to human or animal cells by itself but retaining its enzymatic activity. The modified Pseudomonas exotoxin of the present invention has adp ribosylating activity but lacks all or part of domain II (responsible for translocation across cell membrane) of the native toxin. A preferred modified Pseudomonas exotoxin of the present invention further comprises a modification in the binding domain IA of the native Toxin. Conjugates (immunotoxins) comprising a modofied Pseudomonas exotoxin and a targeting carrier, such as an antibody or a growth factor, methods for producing a modified Pseudomonas exotoxin or conjugates thereof and compositions suitable for administration to a mammal for achieving targeted cytotoxin activity are also disclosed.