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(54) Title: NEUROTOXINS EXHIBITING SHORTENED BIOLOGICAL ACTIVITY

(57) Abstract: The present invention relates to the pharmaceutical field. Specifically, it contemplates a polynucleotide encoding a neurotoxin polypeptide exhibiting a reduced duration of the biological effect in a subject, wherein said polypeptide comprises at least one E3 ligase recognition motif in the light chain, wherein said E3 ligase recognition motif is preferably abinding motif for the E3 ligase MDM2. The invention further pertains to polypeptides encoded by the polynucleotide of the invention as well as polypeptides comprising one or more amino acid substitutions. Further encompassed by the present invention are vectors and host cells comprising the said polynucleotide, polypeptides encoded thereby and antibodies specifically binding to the polypeptides. Moreover, the invention relates to medicaments comprising said polynucleotides and polypeptides, as well as specific therapeutic applications thereof. Furthermore, the present invention contemplates methods for the manufacture of the polypeptides and medicaments.