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(54) Title: MODIFIED TOXINS

(57) Abstract: The present application relates to compositions of modified toxins exhibiting reduced immunogenicity and reduced binding to vascular endothelium or vascular endothelial cells, thereby reducing the incidence of Vascular Leak Syndrome. Also provided are polypeptide toxophores from a modified diphtheria toxin, where modifications are in at least one amino acid residue of at least one T-cell epitope. Another aspect relates to a polypeptide toxophore from a modified diphtheria toxin, where modifications are in at least one amino acid residue of at least one T-cell epitope and at least one amino acid residue of at least one VLS motif of an unmodified native diphtheria toxin. Another aspect relates to a fusion protein which comprises a modified diphtheria toxin and a non-diphtheria toxin fragment that is a cell binding portion. Another aspect relates to the use of a modified diphtheria toxin for the treatment of a malignant disease or a non-malignant disease.



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