

Toxins From The Venom Of The Green Mamba *Dendroaspis Angusticeps* That Inhibit The Binding Of Quinuclidinyl Benzilate To Muscarinic Acetylcholine Receptors (BBA 12211).

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Date: 1988

Abstract:

Two protein toxins that displace the muscarinic antagonist quinuclidinyl benzilate from rat cortex synaptosomal membranes have been isolated from the green mamba (*Dendroaspis angusticeps*) venom by gel filtration on sephadex G-50, chromatography on the ion-exchangers Bio-Rex 70 and Sulphopropyl-Sephadex C-25 and reversed-phase HPLC. Toxin 1 has 64 amino acids and four disulfides and a formula weight of 7200 and the corresponding values for toxin 2 are 63, 4 and 6840, respectively. Ultracentrifugation gave a molecular weight of 6900 for toxin 1 and 6700 for toxin 2, Quinuclidinyl benzilate that binds to all types of muscarinic cholinergic receptor was displaced to about 50% by both toxins. This partial displacement indicates that the toxins might be specific for one subtype of receptor.