

[Open Peer Review on Qeios](#)

# Crotoxin

National Cancer Institute

## Source

National Cancer Institute. *Crotoxin*. NCI Thesaurus. Code C400.

A toxic protein complex isolated from *Crotalus durissus terrificus* (South American rattlesnake) venom that is comprised of a basic neurotoxic subunit with phospholipase A2 (PLA2) activity and an acidic non-enzymatic, non-toxic subunit called crotapotin, with anticoagulant and immunomodulatory activities. The PLA2 subunit of crotoxin hydrolyzes the acyl groups in phosphoglycerides, acts as an anticoagulant by inhibiting the prothrombinase activity of coagulation factor Xa (F10a) and increases chloride-dependent current modulated by the cystic fibrosis transmembrane conductance regulator (CFTR). The PLA2 subunit may also metabolize eicosanoids, forming products that cause sequestration of lymphocytes in the lymph nodes and inhibit the spreading and phagocytic activity of macrophages. Crotoxin down-modulates the immune system, leading to the inhibition of both humoral and cellular immune responses.