Brevetoxins are lipid-soluble polyether neurotoxins initially produced by the dinoflagellate *Karenia brevis*. Brevetoxins act as agonists, binding the neurotoxin site 5 on SCN4A/Nav1.4 and SCN5A/Nav1.5 voltage-gated Na+ channels in skeletal muscle and cardiac tissue, producing a channel opening effect; this activity results in bronchoconstriction and airway inflammation in vivo. Stimulation of the voltage-gated Na+ channels also induces NMDA receptor-mediated release of L-glutamate and L-aspartate in neurons. Brevetoxin 3 is a type B brevetoxin and a metabolite of brevetoxin 2.

References


Colman JR, Ramsdell JS. The type B brevetoxin (PbTx-3) adversely affects development, cardiovascular function, and survival in Medaka (Oryzias latipes) embryos. Environ Health Perspect. 2003 Dec;111(16):1920-5. PMID: 14644667.


**Caution:** This product is intended for laboratory and research use only. It is not for human or drug use.