ProTx-II Biotin

Product description

ProTx-II is a peptide that was originally isolated from *Thrixopelma pruriens* (Peruvian green velvet tarantula). ProTx-II inhibits voltage-gated calcium and sodium channels (site 4). This toxin inhibits activation by shifting the voltage-dependence of channel activation to more positive potentials. Potently inhibits all sodium channel subtypes tested (Na$_{1.2}$/SCN2A, Na$_{1.5}$/SCN5A, Na$_{1.7}$/SCN9A, and Na$_{1.8}$/SCN10A). Is approximately 15-fold more potent on Na$_{1.7}$/SCN9A than on Na$_{1.5}$/SCN5A channels. Acts on Ca$_{3.1}$/CACNA1G, and interacts more weakly with the related T-type channel Ca$_{3.2}$/CACNA1H but potently inhibits the L-type calcium channel Ca$_{1.2}$/CACNA1C. Binds to phospholipids. ProTx-II, a selective inhibitor of Na$_{1.7}$ sodium channels, blocks action potential propagation in nociceptors.

Product specifications


Disulfide bonds: Cys$_2$-Cys$_{16}$, Cys$_9$-Cys$_{21}$ and Cys$_{15}$-Cys$_{25}$

Length (aa): 30

Formula: C$_{179}$H$_{295}$N$_{26}$O$_{23}$S$_9$

Appearance: White lyophilized solid

Molecular Weight: 4052.74 Da

CAS number:

Source: Synthetic

Counterion: TFA salts

Solubility: Water or saline buffer, 2 mg/mL maximum (recommendation)

Formulation


Expiry date: One year

Use restrictions: For laboratory use only. Not for drug, household or other uses. Not for use in diagnostic or therapeutic procedures.

Related products

- **ProTx-I** - #12PTX001: voltage-gated sodium channel inhibitor
- **ProTx-II** - #07PTX002: Na$_{1.7}$ selective inhibitor
- **Huwentoxin I** - #07HTW001: N-type Ca$^{2+}$ channel and TTX-S inhibitor
- **Huwentoxin-IV** - #08HTW002: voltage-gated sodium channel inhibitor
- **Hainanotoxin IV** - #12HTX001: selective blocker of TTX-S channels
- **Jingzhaotoxin III** - #12JZH003: selective blocker of Na$_{1.5}$ channel
- **GsAF-I** - #12GSF001: voltage-gated sodium channel inhibitor
- **GsAF-II** - #12GSF002: voltage-gated sodium channel inhibitor
- **Phrixotoxin-3** - #13PHX003: Na$_{1.2}$ selective blocker
- **μ-conotoxin PIIIA** - #08CON006: Na$_{1.2}$, Na$_{1.4}$ and Na$_{1.7}$ blocker

References


For laboratory research use only