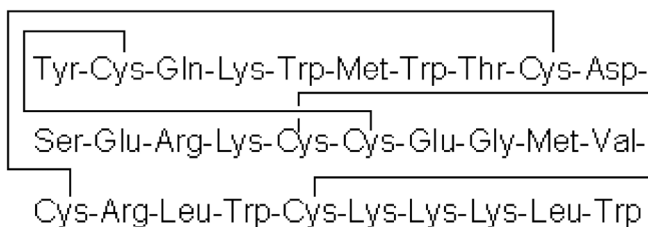


**Product Name:** ProTx II  
**CAS Number:** 484598-36-9

**Catalog No.:** 4023      **Batch No.:** 7

**1. PHYSICAL AND CHEMICAL PROPERTIES**

**Batch Molecular Formula:** C<sub>168</sub>H<sub>250</sub>N<sub>46</sub>O<sub>41</sub>S<sub>8</sub>  
**Batch Molecular Weight:** 3826.59  
**Physical Appearance:** White lyophilised solid  
**Net Peptide Content:** 90%  
**Counter Ion:** TFA  
**Solubility:** Soluble to 1 mg/ml in water  
**Storage:** Store at -20°C  
**Peptide Sequence:**



**2. ANALYTICAL DATA**

**HPLC:** Shows 99.3% purity  
**Mass Spectrum:** Consistent with structure

Caution - Not Fully Tested • Research Use Only • Not For Human or Veterinary Use

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**7**

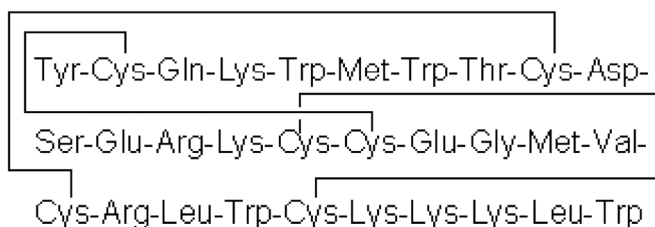
**Description:**

ProTx II is a selective Na<sub>v</sub>1.7 channel blocker. Shifts activation gating positively and decreases current magnitude. Displays 100-fold selectivity over other sodium channel subtypes.

**Physical and Chemical Properties:**

Batch Molecular Formula: C<sub>168</sub>H<sub>250</sub>N<sub>46</sub>O<sub>41</sub>S<sub>8</sub>  
Batch Molecular Weight: 3826.59  
Physical Appearance: White lyophilised solid

**Peptide Sequence:**



**Storage:** Store at -20°C

**Solubility & Usage Info:**

Soluble to 1 mg/ml in water  
This product is supplied in lyophilized form. It may appear as a solid, gel or film and be very hard to visualize. Solutions should be made by adding solvent directly to the vial. The vial should then be vortexed vigorously to ensure the product has completely dissolved.

**Net Peptide Content:** 90% (Remaining weight made up of counterions and residual water).

**Counter Ion:** TFA

**Stability and Solubility Advice:**

Some solutions can be difficult to obtain and can be encouraged by rapid stirring, sonication or gentle warming (in a 45-60°C water bath).

Peptides in solution are much less stable than in lyophilized form. This is especially true for peptides whose sequences contain amino acids such as Cys, Met, Trp, Asn, Gln, and N-terminal Glu.

Therefore we recommend storing peptides in solution for as short a time as possible. Avoid repeated freeze thaw cycles by dividing the peptide solution into aliquots and storing the aliquots at -20°C. Any portion of an aliquot unused after thawing should be discarded.

Peptides stored in solution can occasionally be susceptible to bacterial degradation. We recommend using sterile solutions or passing the peptide solution through a 0.2 µm filter to remove potential bacterial contamination whenever possible.

**References:**

**Xu et al** (2019) Structural basis of Na<sub>v</sub>1.7 inhibition by a gating-modifier spider toxin. *Cell*. **176** 702. PMID: 30661758 .  
**Edgerton et al** (2008) Evidence for multiple effects of ProTxII on activation gating in Na<sub>v</sub> 1.5. *Toxicon*. **52** 489. PMID: 18657562.  
**Schmalhofer et al** (2008) ProTx-II, a selective inhibitor of Na<sub>v</sub> 1.7 sodium channels, blocks action potential propagation in nociceptors. *Mol.Pharmacol.* **74** 1476. PMID: 18728100.

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**bio-techne.com**  
info@bio-techne.com  
techsupport@bio-techne.com

**North America**  
Tel: (800) 343 7475

**China**  
info.cn@bio-techne.com  
Tel: +86 (21) 52380373

**Europe Middle East Africa**  
Tel: +44 (0)1235 529449

**Rest of World**  
www.tocris.com/distributors  
Tel:+1 612 379 2956