

Certificate of Analysis

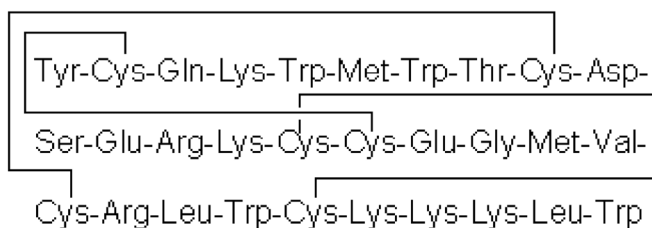
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Product Name: ProTx II
CAS Number: 484598-36-9

Catalog No.: 4023 **Batch No.:** 18

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: C₁₆₈H₂₅₀N₄₆O₄₁S₈
Batch Molecular Weight: 3826.59
Physical Appearance: White solid
Counter Ion: TFA
Solubility: Soluble to 1 mg/ml in water
Storage: Store at -20°C
Peptide Sequence:



2. ANALYTICAL DATA

HPLC: Shows 95.8% purity
Mass Spectrum: Consistent with structure

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

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

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Description:

ProTx II is a selective Na_v1.7 channel blocker. Shifts activation gating positively and decreases current magnitude. Displays 100-fold selectivity over other sodium channel subtypes.

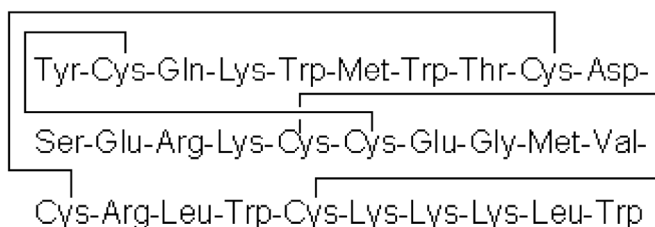
Physical and Chemical Properties:

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Batch Molecular Weight: 3826.59

Physical Appearance: White 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.

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_v1.7 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_v 1.5. *Toxicon*. **52** 489. PMID: 18657562.

Schmalhofer et al (2008) ProTx-II, a selective inhibitor of Na_v 1.7 sodium channels, blocks action potential propagation in nociceptors. *Mol.Pharmacol.* **74** 1476. PMID: 18728100.

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