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Print Date: Apr 11th 2025

Certificate of Analysis

www.tocris.com

Catalog No.: 4023 Batch No.: 16

Product Name:ProTx IICAS Number:484598-36-9

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: Batch Molecular Weight: Physical Appearance: Counter Ion: Solubility: Storage: Peptide Sequence: C₁₆₈H₂₅₀N₄₆O₄₁S₈ 3826.59 White solid TFA Soluble to 1 mg/ml in water Store at -20°C Tyr-Cys-Gln-Lys-Trp-Met-Trp-Thr-Cys-Asp-Ser-Glu-Arg-Lys-Cys-Cys-Glu-Gly-Met-Val-Cys-Arg-Leu-Trp-Cys-Lys-Lys-Lys-Leu-Trp

2. ANALYTICAL DATA HPLC: Mass Spectrum:

Shows 95.8% purity Consistent with structure

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

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Product Name: ProTx II

CAS Number: 484598-36-9

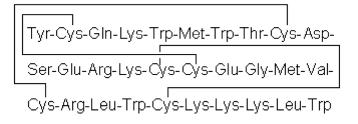
Description:

ProTx II is a selective $Na_V 1.7$ 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: $C_{168}H_{250}N_{46}O_{41}S_8$ Batch Molecular Weight: 3826.59 Physical Appearance: White solid

Peptide Sequence:



Catalog No.: 4023

Batch No.: 16

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 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 μ m filter to remove potential bacterial contamination whenever possible.

References:

Xu et al (2019) Structural basis of Nav1.7 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 Nav 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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