1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: \( C_{65}H_{95}N_{19}O_{22}S_4 \)
Batch Molecular Weight: 1622.82
Physical Appearance: White lyophilised solid
Net Peptide Content: 85%
Counter Ion: TFA
Solubility: Soluble to 5 mg/ml in water
Storage: Desiccate at -20°C
Peptide Sequence: Gly-Cys-Cys-Ser-Leu-Pro-Pro-Cys-Ala-Ala-Asn-Asn-Pro-Asp-Tyr-Cys-NH₂

2. ANALYTICAL DATA

HPLC: Shows 97.5% purity
Mass Spectrum: Consistent with structure

3. AMINO ACID ANALYSIS DATA

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<th>Actual</th>
<th>Amino Acid</th>
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Product Name: α-Conotoxin PnIA
CAS Number: 705300-84-1

Description:
Selective antagonist of α3β2 nAChR receptors (IC50 values are 9.56 and 252 nM for α3β2 and α7 receptors respectively).

Physical and Chemical Properties:
Batch Molecular Formula: C60H98N19O22S4
Batch Molecular Weight: 1622.82
Physical Appearance: White lyophilised solid

Peptide Sequence:
Gly-Cys-Cys-Ser-Leu-Pro-Pro-Cys-Ala-Ala-
Asn-Asn-Pro-Asp-Tyr-Cys-NH₂

Storage: Desiccate at -20°C

Solubility & Usage Info:
Soluble to 5 mg/ml in water

Net Peptide Content: 85% (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.

Other Information:
This is a dual-use item with associated conditions of supply; the relevant licence/documentation from the appropriate governing body will be required.

Note on Biotubes:
Toxins are supplied in protective biotubes. These biotubes have a screw top lid, which is manually tightened and can be easily unscrewed. If the lid is particularly tight, a coin placed in the top slot may be used to unscrew it.

Licensing Information:
Sold under license from University of Utah

References: