Certificate of Analysis

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Print Date: Feb 28th 2024

Catalog No.: 2945 Batc

Batch No.: 6

 Product Name:
 SNX 482

 CAS Number:
 203460-30-4

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1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: Batch Molecular Weight: Physical Appearance: Net Peptide Content: Counter Ion: Solubility: Storage: Peptide Sequence: C₁₉₂H₂₇₄N₅₂O₆₀S₇ 4495.01 White lyophilised solid 90% Ammonia Soluble in water Desiccate at -20°C

Gly-Val-Asp-Lys-Ala-Gly-Cys-Arg-Tyr-Met-

Phe-Gly-Gly-Cys-Ser-Val-Asn-Asp-Asp-Cys-

Cys-Pro-Arg-Leu-Gly-Cys-His-Ser-Leu-Phe-

Ser-Tyr-Cys-Ala-Trp-Asp-Leu-Thr-Phe-Ser-Asp

2. ANALYTICAL DATA HPLC:

Mass Spectrum:

Shows >99% purity Consistent with structure

3. AMINO ACID ANALYSIS DATA

Amino Acid Theoretical Actual Amino Acid Theoretical Actual

Ala	2.00	2.01	Lys	1.00	1.02
Arg	2.00	2.00	Met	1.00	0.94
Asx	6.00	6.00	Phe	3.00	3.01
Cys	6.00	5.52	Pro	1.00	1.00
Glx			Ser	4.00	3.52
Gly	5.00	4.99	Thr	1.00	0.96
His	1.00	1.01	Trp	1.00	0.86
lle			Tyr	2.00	1.92
Leu	3.00	3.02	Val	2.00	2.02

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

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Product Name: SNX 482

CAS Number: 203460-30-4

Description:

SNX 482 is a potent and selective, voltage-dependent R-type $Ca_V 2.3$ calcium channel blocker ($IC_{50} = 30$ nM). Antinociceptive; inhibits nociceptive C-fibre and A δ -fibre-evoked neuronal responses.

Physical and Chemical Properties:

Batch Molecular Formula: C₁₉₂H₂₇₄N₅₂O₆₀S₇ Batch Molecular Weight: 4495.01 Physical Appearance: White Iyophilised solid

Peptide Sequence:



Ser-Tyr-Cys-Ala-Trp-Asp-Leu-Thr-Phe-Ser-Asp

Storage: Desiccate at -20°C

Solubility & Usage Info:

Soluble 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: Ammonia

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:

Matthews *et al* (2007) The Ca_V2.3 calcium channel antagonist SNX-482 reduces dorsal horn neuronal responses in a rat model of chronic neuropathic pain. Eur.J.Neurosci. **25** 3561. PMID: 17610575.

Bourinet *et al* (2001) Interaction of SNX482 with domains III and IV inhibits activation gating of α_{1E} (Ca_V2.3) calcium channels. Biophys.J. **81** 79. PMID: 11423396.

Newcomb *et al* (1998) Selective peptide antagonist of the class E calcium channel from the venom of the Tarantula *Hysterocrates gigas*. Biochemistry **37** 15353. PMID: 9799496.

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