bio-techne
TOCRIS

Print Date: May 9th 2025

Certificate of Analysis

www.tocris.com

Product Name: **Cyclotraxin B** **Catalog No.: 5062** **Batch No.: 9**

CAS Number: 1203586-72-4

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: $C_{48}H_{73}N_{13}O_{17}S_3$

Batch Molecular Weight: 1200.36

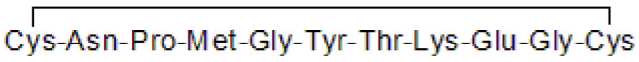
Physical Appearance: White lyophilised solid

Counter Ion: TFA

Solubility: Soluble to 2 mg/ml in water

Storage: Store at -20°C

Peptide Sequence:



2. ANALYTICAL DATA

HPLC: Shows 98.7 % purity

Mass Spectrum: Consistent with structure

3. AMINO ACID ANALYSIS DATA

Amino Acid	Theoretical	Actual	Amino Acid	Theoretical	Actual
Ala			Lys	1.00	1.01
Arg			Met	1.00	0.97
Asx	1.00	0.99	Phe		
Cys	2.00	0.89	Pro	1.00	1.02
Glx	1.00	1.02	Ser		
Gly	2.00	2.02	Thr	1.00	0.81
His			Trp		
Ile			Tyr	1.00	0.96
Leu			Val		

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Product Name: **Cyclotraxin B** **Catalog No.: 5062** **Batch No.: 9**

CAS Number: 1203586-72-4

Description:

Cyclotraxin B is an antagonist of TrkB receptors; inhibits BDNF-induced TrkB activity (IC_{50} = 0.30 nM). Allosterically alters TrkB receptor conformation but does not alter BDNF binding. Prevents BDNF-induced cold allodynia in mice. Also shown to exhibit putative anxiolytic properties in mice.

Physical and Chemical Properties:

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Physical Appearance: White lyophilised solid

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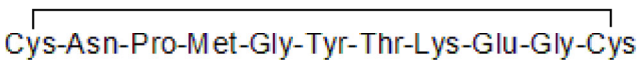

Storage: Store at -20°C

Solubility & Usage Info:

Soluble to 2 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 µm filter to remove potential bacterial contamination whenever possible.

References:

Constandil *et al* (2012) Cyclotraxin-B, a new TrkB antagonist, and glial blockade by propentofylline, equally prevent and reverse cold allodynia induced by BDNF or partial infraorbital nerve constriction in mice. J.Pain ***13*** 579. PMID: 22560237.

Cazorla *et al* (2010) Cyclotraxin-B, the first highly potent and selective TrkB antagonist, has anxiolytic properties in mice. PLoS One ***5*** e9777. PMID: 20333308.