bio-techne
TOCRIS

Print Date: Oct 24th 2025

Certificate of Analysis

www.tocris.com

Product Name: **Cortistatin 14** **Catalog No.: 3374** **Batch No.: 33**

CAS Number: 193829-96-8

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: $C_{81}H_{113}N_{19}O_{19}S_2$

Batch Molecular Weight: 1721.03

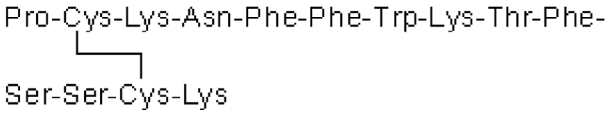
Physical Appearance: White lyophilised solid

Counter Ion: Trifluoroacetate

Solubility: Soluble to 0.70 mg/ml in water

Storage: Store at -20°C

Peptide Sequence:



2. ANALYTICAL DATA

HPLC: Shows 96.9% purity

Mass Spectrum: Consistent with structure

3. AMINO ACID ANALYSIS DATA

Amino Acid	Theoretical	Actual	Amino Acid	Theoretical	Actual
Ala			Lys	3.00	2.95
Arg			Met		
Asx	1.00	1.01	Phe	3.00	2.94
Cys	2.00	0.91	Pro	1.00	1.10
Glx			Ser	2.00	1.34
Gly			Thr	1.00	0.81
His			Trp	1.00	0.06
Ile			Tyr		
Leu			Val		

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Description:

Cortistatin 14 (CST-14) is an endogenous neuropeptide, mainly expressed in the cortex and hippocampus, that has structural and functional similarities to somatostatin-14. Cortistatin 14 displays potency at all somatostatin receptors (sst_1 - sst_5) and prevents somatostatin-14 binding (IC_{50} values are 0.09, 0.2, 0.3, 0.3 and 5 nM at sst_2, sst_4, sst_3, sst_5 and sst_1 receptors, respectively). Also a potent MRGPRX2 agonist (EC_{50} = 25 nM in HEK293 cells) and binds to the growth hormone secretagog receptor (GHS-R1a). Exhibits neuronal depressant and sleep-modulating properties in vivo. Please see product specific page on www.tocris.com for full description.

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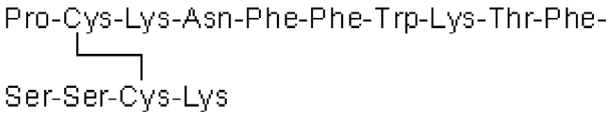

Storage: Store at -20°C

Solubility & Usage Info:

Soluble to 0.70 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: Trifluoroacetate

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:

Solinski *et al* (2014) Pharmacology and signaling of MAS-related G protein-coupled receptors. Pharmacol.Rev. ***66*** 570. PMID: 24867890.

Robas *et al* (2003) MrgX2 is a high potency cortistatin receptor expressed in dorsal root ganglion. J.Biol.Chem. ***278*** 44400. PMID: 12915402.

Deghenghi *et al* (2001) Cortistatin, but not somatostatin, binds to GH secretagogue (GHS) receptors of the human pituitary gland. J.Endocrinol.Invest. ***24*** RC1. PMID: 11227737.