Certificate of Analysis

Product Name: **Cyclosomatostatin** **Catalog No.: 3493** **Batch No.: 12**

CAS Number: 84211-54-1

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: $C_{44}H_{57}N_7O_6$

Batch Molecular Weight: 779.98

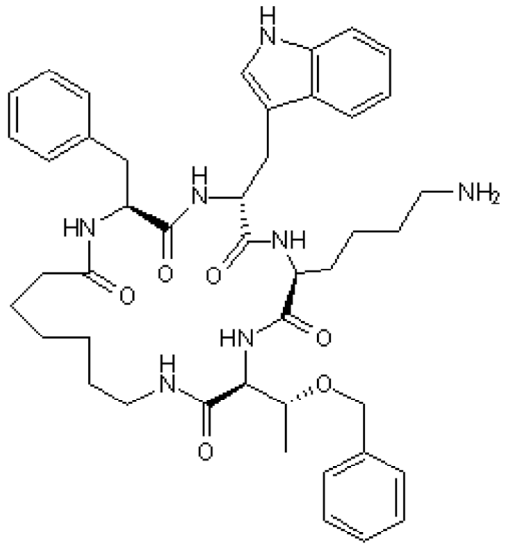
Physical Appearance: White lyophilised solid

Counter Ion: TFA

Solubility: Soluble to 1 mg/ml in 20% ethanol / water

Storage: Store at -20°C

Peptide Sequence:



2. ANALYTICAL DATA

HPLC: Shows 99.2% purity

Mass Spectrum: Consistent with structure

3. AMINO ACID ANALYSIS DATA

Amino Acid	Theoretical	Actual	Amino Acid	Theoretical	Actual
Ala			Lys	1.00	0.98
Arg			Met		
Asx			Phe	1.00	1.00
Cys			Pro		
Glx			Ser		
Gly			Thr	1.00	1.02
His			Trp	1.00	Not Detected
Ile			Tyr		
Leu			Val		

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Description:

Cyclosomatostatin is a non-selective somatostatin (sst) receptor antagonist. Blocks the effects of sst on airway β-adrenergic function, CRF-induced suppression of gastric empyting, modulation of ACh release and growth hormone, insulin and glucagon release. Reported to act as an sst receptor agonist in human neuroblastoma cell line SH-SY5Y.

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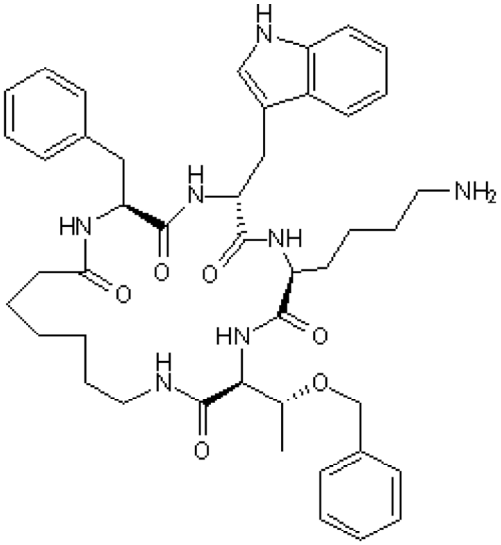

Storage: Store at -20°C

Solubility & Usage Info:

Soluble to 1 mg/ml in 20% ethanol / 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:

Guo *et al* (2008) Somatostatin inhibits activation of dorsal cutaneous primary afferents induced by antidromic stimulation of primary afferents from an adjacent segment in the rat. Brain Res. ***1229*** 61. PMID: 18640104.

Stirnweis *et al* (2002) The putative somatostatin antagonist, cyclo-(7-aminoheptanoyl-Phe-D-Trp-Lys-Thr[BZL]), may act as a potent antiproliferative agonist. Peptides ***23*** 1503. PMID: 12182954.

Fries *et al* (1982) Somatostatin antagonist analog increases GH, Ins, and glucagon release in the rat. Peptides ***3*** 811. PMID: 6129618.