

Product Name: Cortagine

Catalog No.: 6450

Batch No.: 1

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: C₁₉₂H₃₂₃N₅₅O₆₃S
Batch Molecular Weight: 4442.06
Physical Appearance: White lyophilised solid
Net Peptide Content: 84%
Counter Ion: TFA
Solubility: Soluble to 1 mg/ml in 0.01M PBS
Storage: Store at -20°C
Peptide Sequence: Glp-Gly-Pro-Pro-Ile-Ser-Ile-Asp-Leu-Ser-Leu-Glu-Leu-Leu-Arg-Glu-Val-Leu-Glu-Met-Glu-Arg-Ala-Glu-Gln-Leu-Ala-Gln-Gln-Ala-Ala-Asn-Asn-Arg-Leu-Leu-Leu-Asp-Thr-Ala-NH₂

2. ANALYTICAL DATA

HPLC: Shows 96.2% purity
Mass Spectrum: Consistent with structure

3. AMINO ACID ANALYSIS DATA

Amino Acid		Theoretical	Actual	Amino Acid		Theoretical	Actual
Ala	5.00	4.84	Lys				
Arg	3.00	3.13	Met	1.00	0.99		
Asx	4.00	3.99	Phe				
Cys			Pro	2.00	2.11		
Glx	9.00	8.89	Ser	2.00	2.02		
Gly	1.00	1.08	Thr	1.00	0.88		
His			Trp				
Ile	2.00	1.73	Tyr				
Leu	9.00	7.77	Val	1.00	1.12		

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

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Description:

Potent and selective corticotrophin releasing factor receptor 1 (CRF₁) agonist (EC₅₀ = 0.18 nM for rat CRF₁). Displays anxiolytic and antidepressant activity in vivo. Microinfusion into mouse prefrontal cortex reduces defensive behavior in vivo.

Physical and Chemical Properties:

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Batch Molecular Weight: 4442.06

Physical Appearance: White lyophilised solid

Peptide Sequence:

Glp-Gly-Pro-Pro-Ile-Ser-Ile-Asp-Leu-Ser-
Leu-Glu-Leu-Leu-Arg-Glu-Val-Leu-Glu-Met-
Glu-Arg-Ala-Glu-Gln-Leu-Ala-Gln-Gln-Ala-
Ala-Asn-Asn-Arg-Leu-Leu-Leu-Asp-Thr-Ala-NH₂

Storage: Store at -20°C

Solubility & Usage Info:

Soluble to 1 mg/ml in 0.01M PBS

This product is supplied as a lyophilized solid and may 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: 84% (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.

References:

Pentkowski *et al* (2013) Cortagine infused into the medial prefrontal cortex attenuates predator-induced defensive behaviors and Fos protein production in selective nuclei of the amygdala in male CD1 mice. *Horm.Behav.* **64** 519. PMID: 23845323.

Farrokhi *et al* (2007) Cortagine: behavioral and autonomic function of the selective CRF receptor subtype 1 agonist. *CNS Drug Rev.* **13** 423. PMID: 18078427.

Tezval *et al* (2004) Cortagine, a specific agonist of corticotropin-releasing factor receptor subtype 1, is anxiogenic and antidepressive in the mouse model. *Proc.Natl.Acad.Sci.U.S.A.* **101** 9468. PMID: 15192151.

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