

Certificate of Analysis

Print Date: Feb 14th 2023

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Product Name: CRF (human, rat) Catalog No.: 1151 Batch No.: 33

CAS Number: 86784-80-7

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: $C_{208}H_{344}N_{60}O_{63}S_2$

Batch Molecular Weight: 4758

Physical Appearance: White lyophilised solid

Counter Ion: TFA

Solubility: Soluble to 1.10 mg/ml in water

Storage: Store at -20°C

Peptide Sequence: Ser-Glu-Glu-Pro-Pro-Ile-Ser-Leu-Asp-Leu-

Thr-Phe-His-Leu-Leu-Arg-Glu-Val-Leu-Glu-Met-Ala-Arg-Ala-Glu-Gln-Leu-Ala-Gln-Gln-Ala-His-Ser-Asn-Arg-Lys-Leu-Met-Glu-Ile-Ile-NH₂

2. ANALYTICAL DATA

HPLC: Shows 99.0% purity

Mass Spectrum: Consistent with structure

3. AMINO ACID ANALYSIS DATA

Amino Acid	Theoretical	Actual	Amino Acid	Theoretical	Actua
Ala	4.00	3.75	Lys	1.00	0.94
Arg	3.00	3.04	Met	2.00	2.10
Asx	2.00	2.03	Phe	1.00	1.05
Cys			Pro	2.00	2.01
Glx	9.00	8.95	Ser	3.00	2.96
Gly			Thr	1.00	0.99
His	2.00	2.01	Trp		
lle	3.00	3.16	Tyr		
Leu	7.00	6.29	Val	1.00	0.84

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



Product Information

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CAS Number: 86784-80-7

Description:

CRF (human, rat) is a endogenous peptide agonist for the CRF receptor (K_i values are 11, 44 and 38 nM for hCRF₁, rCRF_{2a} and mCRF_{2b} respectively). Stimulates the synthesis and release of ACTH from the anterior pituitary.

Physical and Chemical Properties:

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Peptide Sequence:

Ser-Glu-Glu-Pro-Pro-Ile-Ser-Leu-Asp-Leu-Thr-Phe-His-Leu-Leu-Arg-Glu-Val-Leu-Glu-Met-Ala-Arg-Ala-Glu-Gln-Leu-Ala-Gln-Gln-Ala-His-Ser-Asn-Arg-Lys-Leu-Met-Glu-Ile-Ile-NH2 Storage: Store at -20°C

Solubility & Usage Info:

Soluble to 1.10 mg/ml in water

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.

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.

Licensing Information:

Sold with the permission of the SALK Institute

References:

Perrin *et al* (1999) Comparison of an agonist, urocortin, and an antagonist, astressin, as radioligands for characterization of corticotropin-releasing factor receptors. J.Pharmacol.Exp.Ther. *288* 729. PMID: 9918582.

Perrin and Vale (1999) Corticotropin releasing factor receptors and their ligand family. Ann.N.Y.Acad.Sci. 885 312. PMID: 10816663.

Rivier et al (1986) Mediation by cortico. releasing factor (CRF) of adenohypophysial hormone secretion. Annu.Rev.Physiol. 48 475. PMID: 2871808.

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