

# Certificate of Analysis

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**Product Name:** CRF (human, rat)

**Catalog No.:** 1151

**Batch No.:** 34

CAS Number: 86784-80-7

## 1. PHYSICAL AND CHEMICAL PROPERTIES

**Batch Molecular Formula:** C<sub>208</sub>H<sub>344</sub>N<sub>60</sub>O<sub>63</sub>S<sub>2</sub>  
**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-NH<sub>2</sub>

## 2. ANALYTICAL DATA

**HPLC:** Shows 98.6% purity  
**Mass Spectrum:** Consistent with structure

## 3. AMINO ACID ANALYSIS DATA

Amino Acid Theoretical Actual			Amino Acid Theoretical Actual		
Ala	4.00	3.84	Lys	1.00	1.01
Arg	3.00	3.04	Met	2.00	2.02
Asx	2.00	2.04	Phe	1.00	1.02
Cys	0.00	Not Detected	Pro	2.00	2.02
Glx	9.00	9.06	Ser	3.00	2.95
Gly	0.00	Not Detected	Thr	1.00	0.95
His	2.00	1.75	Trp	0.00	Not Detected
Ile	3.00	2.46	Tyr	0.00	Not Detected
Leu	7.00	6.98	Val	1.00	1.01

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

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CAS Number: 86784-80-7

**Description:**

CRF (human, rat) is an endogenous peptide agonist for the CRF receptor ( $K_i$  values are 11, 44 and 38 nM for hCRF<sub>1</sub>, rCRF<sub>2a</sub> and mCRF<sub>2b</sub> respectively). Stimulates the synthesis and release of ACTH from the anterior pituitary.

**Physical and Chemical Properties:**Batch Molecular Formula: C<sub>208</sub>H<sub>344</sub>N<sub>60</sub>O<sub>63</sub>S<sub>2</sub>

Batch Molecular Weight: 4758

Physical Appearance: White lyophilised solid

**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-NH<sub>2</sub>

**Storage:** Store at -20°C**Solubility & Usage Info:**

Soluble to 1.10 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 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.

**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 adenohipophysial hormone secretion. *Annu.Rev.Physiol.* **48** 475. PMID: 2871808.

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**bio-techne.com**

info@bio-techne.com

techsupport@bio-techne.com

**North America**

Tel: (800) 343 7475

**China**

info.cn@bio-techne.com

Tel: +86 (21) 52380373

**Europe Middle East Africa**

Tel: +44 (0)1235 529449

**Rest of World**

www.tocris.com/distributors

Tel:+1 612 379 2956