

# Certificate of Analysis

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**Product Name:**  $\alpha$ -helical CRF 9-41

**Catalog No.:** 1184

**Batch No.:** 11

CAS Number: 90880-23-2

## 1. PHYSICAL AND CHEMICAL PROPERTIES

<b>Batch Molecular Formula:</b>	C <sub>166</sub> H <sub>274</sub> N <sub>46</sub> O <sub>53</sub> S <sub>2</sub>
<b>Batch Molecular Weight:</b>	3827
<b>Physical Appearance:</b>	White lyophilised solid
<b>Net Peptide Content:</b>	83%
<b>Counter Ion:</b>	Acetate
<b>Solubility:</b>	Soluble to 1 mg/ml in 0.1% TFA
<b>Storage:</b>	Desiccate at -20°C
<b>Peptide Sequence:</b>	Asp-Leu-Thr-Phe-His-Leu-Leu-Arg-Glu-Met- Leu-Glu-Met-Ala-Lys-Ala-Glu-Gln-Glu-Ala- Glu-Gln-Ala-Ala-Leu-Asn-Arg-Leu-Leu-Leu- Glu-Glu-Ala-NH <sub>2</sub>

## 2. ANALYTICAL DATA

<b>HPLC:</b>	Shows 95.3% purity
<b>Mass Spectrum:</b>	Consistent with structure

## 3. AMINO ACID ANALYSIS DATA

Amino Acid Theoretical Actual			Amino Acid Theoretical Actual		
Ala	6.00	6.01	Lys	1.00	1.05
Arg	2.00	2.06	Met	2.00	2.04
Asx	2.00	2.12	Phe	1.00	1.02
Cys			Pro		
Glx	9.00	9.42	Ser		
Gly			Thr	1.00	0.91
His	1.00	1.02	Trp		
Ile			Tyr		
Leu	8.00	8.28	Val		

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

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**Product Name:**  $\alpha$ -helical CRF 9-41

**Catalog No.:** 1184

**Batch No.:** 11

CAS Number: 90880-23-2

**Description:**

Corticotropin-releasing factor receptor antagonist ( $K_i$  values are 17, 5 and 0.97 at human CRF<sub>1</sub>, rat CRF<sub>2 $\alpha$</sub>  and mouse CRF<sub>2 $\beta$</sub>  receptors respectively).

**Physical and Chemical Properties:**

Batch Molecular Formula: C<sub>166</sub>H<sub>274</sub>N<sub>46</sub>O<sub>53</sub>S<sub>2</sub>

Batch Molecular Weight: 3827

Physical Appearance: White lyophilised solid

**Peptide Sequence:**

Asp-Leu-Thr-Phe-His-Leu-Leu-Arg-Glu-Met-  
Leu-Glu-Met-Ala-Lys-Ala-Glu-Gln-Glu-Ala-  
Glu-Gln-Ala-Ala-Leu-Asn-Arg-Leu-Leu-Leu-  
Glu-Glu-Ala-NH<sub>2</sub>

**Storage:** Desiccate at -20°C

**Solubility & Usage Info:**

Soluble to 1 mg/ml in 0.1% TFA

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:** 83% (Remaining weight made up of counterions and residual water).

**Counter Ion:** Acetate

**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  $\mu$ m filter to remove potential bacterial contamination whenever possible.

**Licensing Information:**

Sold with the permission of the SALK Institute

**References:**

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

**Kask et al** (1997) Alpha-helical(9-41) reverts anxiogenic-like effect of NPY Y<sub>1</sub> receptor antagonist BIBP3226. *NeuroReport* **8** 3645. PMID: 9427342.

**Swerdlow et al** (1989) Potentiation of acoustic startle by corticotropin-releasing factor (CRF) and by fear are both reversed by  $\alpha$ -helical CRF (9-41). *Neuropsychopharmacology* **2** 285. PMID: 2610824.

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