

# Certificate of Analysis

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**Product Name:** Antisauvagine-30

**Catalog No.:** 2071

**Batch No.:** 8

CAS Number: 220673-95-0

## 1. PHYSICAL AND CHEMICAL PROPERTIES

**Batch Molecular Formula:** C<sub>161</sub>H<sub>274</sub>N<sub>48</sub>O<sub>46</sub>S  
**Batch Molecular Weight:** 3650.29  
**Physical Appearance:** White lyophilised solid  
**Net Peptide Content:** 74%  
**Counter Ion:** TFA  
**Solubility:** Soluble to 1 mg/ml in water  
**Storage:** Desiccate at -20°C  
**Peptide Sequence:** D-Phe-His-Leu-Leu-Arg-Lys-Met-Ile-Glu-Ile-Glu-Lys-Gln-Glu-Lys-Glu-Lys-Gln-Gln-Ala-Ala-Asn-Asn-Arg-Leu-Leu-Leu-Asp-Thr-Ile-NH<sub>2</sub>

## 2. ANALYTICAL DATA

**HPLC:** Shows 98.9% purity  
**Mass Spectrum:** Consistent with structure

## 3. AMINO ACID ANALYSIS DATA

Amino Acid		Theoretical	Actual	Amino Acid		Theoretical	Actual
Ala	2.00	2.03	Lys	4.00	3.96		
Arg	2.00	2.02	Met	1.00	1.01		
Asx	3.00	3.16	Phe	1.00	0.99		
Cys			Pro				
Glx	7.00	6.91	Ser				
Gly			Thr	1.00	0.91		
His	1.00	1.03	Trp				
Ile	3.00	2.86	Tyr				
Leu	5.00	4.89	Val				

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

**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](http://www.tocris.com/distributors)  
 Tel:+1 612 379 2956

**Product Name:** Antisauvagine-30

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**Description:**

Potent, selective and competitive corticotropin-releasing factor CRF<sub>2</sub> receptor antagonist (K<sub>d</sub> values are 1.4 and 153.6 nM for binding to mouse CRF<sub>2β</sub> and rat CRF<sub>1</sub> receptors respectively). Inhibits sauvagine-stimulated cAMP accumulation in HEK-mCRF<sub>2β</sub> cells (pA<sub>2</sub> = 8.49). Prevents stress-enhanced fear conditioning and MEK 1/2-dependent activation of ERK1/2 in mice in vivo.

**Physical and Chemical Properties:**

Batch Molecular Formula: C<sub>161</sub>H<sub>274</sub>N<sub>48</sub>O<sub>46</sub>S

Batch Molecular Weight: 3650.29

Physical Appearance: White lyophilised solid

**Peptide Sequence:**

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

**Storage:** Desiccate at -20°C

**Solubility & Usage Info:**

Soluble to 1 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.

**Net Peptide Content:** 74% (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.

**Licensing Information:**

Sold with the permission of the Max Planck Institute

**References:**

**Sananbenesi et al** (2003) Mitogen-activated protein kinase signaling in the hippocampus and its modulation by corticotropin-releasing factor receptor 2: a possible link between stress and fear memory. *J. Neurosci.* **23** 11436. PMID: 14673008.

**Brauns et al** (2001) Pharmacological and chemical properties of astressin, antisauvagine-30 and α-helCRF: significance for behavioral experiments. *Neuropharmacology* **41** 507. PMID: 11543771.

**Ruhmann et al** (1998) Structural requirements for peptidic antagonists of the corticotropin-releasing factor receptor (CRFR): development of CRFR2β-selective antisauvagine-30. *Proc. Natl. Acad. Sci. USA* **95** 15264.

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