

Certificate of Analysis

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Product Name: Dynorphin A

Catalog No.: 3195

Batch No.: 12

CAS Number: 80448-90-4

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula:	C ₉₉ H ₁₅₅ N ₃₁ O ₂₃
Batch Molecular Weight:	2147.51
Physical Appearance:	White lyophilised solid
Counter Ion:	TFA
Solubility:	Soluble to 0.80 mg/ml in water
Storage:	Store at -20°C
Peptide Sequence:	Tyr-Gly-Gly-Phe-Leu-Arg-Arg-Ile-Arg-Pro-Lys-Leu-Lys-Trp-Asp-Asn-Gln

2. ANALYTICAL DATA

HPLC:	Shows 96.6% purity
Mass Spectrum:	Consistent with structure

3. AMINO ACID ANALYSIS DATA

Amino Acid Theoretical			Actual		
Ala			Lys	2.00	2.00
Arg	3.00	2.96	Met		
Asx	2.00	2.04	Phe	1.00	1.00
Cys			Pro	1.00	1.01
Glx	1.00	1.04	Ser		
Gly	2.00	2.01	Thr		
His			Trp	1.00	0.60
Ile	1.00	0.97	Tyr	1.00	1.02
Leu	2.00	1.95	Val		

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

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Product Name: Dynorphin A**Catalog No.:** 3195**12**

CAS Number: 80448-90-4

Description:

Dynorphin A is an endogenous kappa receptor agonist.

Physical and Chemical Properties:Batch Molecular Formula: C₉₉H₁₅₅N₃₁O₂₃

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Physical Appearance: White lyophilised solid

Peptide Sequence:Tyr-Gly-Gly-Phe-Leu-Arg-Arg-Ile-Arg-Pro-Lys-
Leu-Lys-Trp-Asp-Asn-Gln**Storage:** Store at -20°C**Solubility & Usage Info:**

Soluble to 0.80 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.

References:**Tan-No et al** (2008) Cysteine protease inhibitors suppress the development of tolerance to mor. antinociception. *Neuropeptides* **42** 239. PMID: 18440066.**Dhawan et al** (1996) International union of pharmacology XII. Classification of opioid receptors. *Pharmacol.Rev.* **48** 567. PMID: 8981566.

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