

Certificate of Analysis

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Product Name ICI 174,864

Catalog No. 0820

Batch No. 11

CAS Number: 89352-67-0

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula	C ₃₈ H ₅₃ N ₅ O ₇
Batch Molecular Weight	691.87
Physical Appearance	White lyophilised solid
Counter Ion	TFA
Solubility	Soluble to 69.19 mg/ml in DMSO Soluble to 1 mg/ml in water
Storage	Store at -20°C
Peptide Sequence	N,N-diallyl-Tyr-Aib-Aib-Phe-Leu

2. ANALYTICAL DATA

HPLC	Shows 98.7 % purity
Mass Spectrum	Consistent with structure

3. AMINO ACID ANALYSIS DATA

Amino Acid Theoretical		Actual	
Ala		Lys	
Arg		Met	
Asx		Phe	1.00 0.95
Cys		Pro	
Glx		Ser	
Gly		Thr	
His		Trp	
Ile		Tyr	1.00 Not Detected
Leu	1.00 1.05	Val	

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

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Product Information

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Product Name ICI 174,864

Catalog No. 0820

Batch No. 11

CAS Number: 89352-67-0

Description

ICI 174,864 is a selective opioid antagonist. Exhibits partial agonist in vitro activity at receptors at high concentrations.

Physical and Chemical Properties

Batch Molecular Formula: C₃₈H₅₃N₅O₇

Batch Molecular Weight: 691.87

Physical Appearance: White lyophilised solid

Peptide Sequence

N,N-diallyl-Tyr-Aib-Aib-Phe-Leu

Storage Store at -20°C

Solubility Usage Info

Soluble to 69.19 mg/ml in DMSO

Soluble to 1 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

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References

Cohen et al (1996) Opioid agonist activity of ICI 174864 and its carboxypeptidase degradation product, L 281217. *Pharmacol. Exp. Ther.* 769. PMID: 2875170.

Cowan et al (1985) Studies *in vivo* with ICI-174,864 and D-Pen², D-Pen⁵-enkephalin. *Neuropeptides* 311. PMID: 2987731.

Hirning et al (1985) Studies *in vitro* with ICI-174,864 D-Pen², D-Pen⁵-enkephalin (DPDPE) and D-Ala², NMePhe⁴, Gly-ol-enkephalin (DAGO). *Neuropeptides* 383. PMID: 2987739.

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