

Certificate of Analysis

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Product Name: JMV 390-1

Catalog No.: 2575

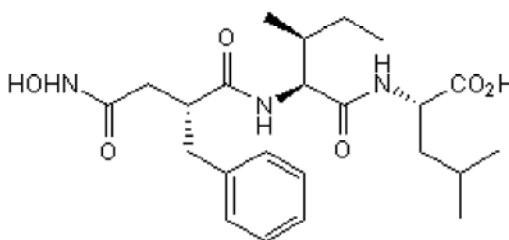
Batch No.: 1

CAS Number: 148473-36-3

IUPAC Name: *N*-[(2*R*)-4-Hydroxyamino)-1,4-dioxo-2-(phenylmethyl)butyl]-L-isoleucyl-L-leucine

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula:	C ₂₃ H ₃₅ N ₃ O ₆
Batch Molecular Weight:	449.54
Physical Appearance:	White lyophilised solid
Solubility:	Soluble to 0.80 mg/ml in sodium bicarbonate (0.01M)
Storage:	Store at -20°C
Peptide Sequence:	



2. ANALYTICAL DATA

HPLC:	Shows 95.5% purity
Mass Spectrum:	Consistent with structure

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

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Description:

Inhibitor of the major neurotensin and neuromedin N degrading enzymes (IC₅₀ values are 31, 40, 52 and 58 nM for endopeptidase 24.15, endopeptidase 24.11, leucine aminopeptidase and endopeptidase 24.16 respectively). Exhibits analgesic effects in various nociception assays.

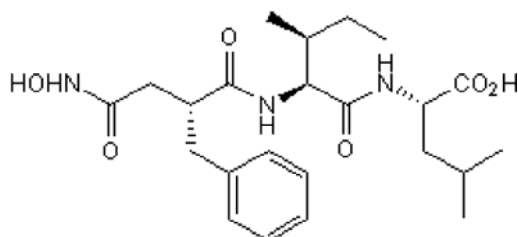
Physical and Chemical Properties:

Batch Molecular Formula: C₂₃H₃₅N₃O₆

Batch Molecular Weight: 449.54

Physical Appearance: White lyophilised solid

Peptide Sequence:



Storage: Store at -20°C

Solubility & Usage Info:

Soluble to 0.80 mg/ml in sodium bicarbonate (0.01M)

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.

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:

Menard et al (1996) The cytotoxic activity of *Bacillus anthracis* lethal factor is inhibited by leukotriene A₄ hydrolase and metalloproteinase inhibitors. *Biochem.J.* **320** 687. PMID: 8973585.

Doulut et al (1993) Synthesis and analgesic effects of *N*-[3-[(hydroxyamino) carbonyl]-1-oxo-2(*R*)-benzylpropyl]-L-isoleucyl-L-leucine, a new potent inhibitor of multiple neurotensin/neuromedin N degrading enzymes. *J.Med.Chem.* **36** 1369. PMID: 8496905.

Kitabgi et al (1992) Effects of thiorphan, bestatin and a novel metalloproteinase inhibitor JMV 390-1 on the recovery of neurotensin and neuromedin N released from mouse hypothalamus. *Neurosci.Lett.* **142** 200. PMID: 1454216.

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