

# Certificate of Analysis

[www.tocris.com](http://www.tocris.com)

**Product Name:** JMV 449  
CAS Number: 139026-66-7

**Catalog No.:** 1998 **Batch No.:** 10

## 1. PHYSICAL AND CHEMICAL PROPERTIES

**Batch Molecular Formula:** C<sub>38</sub>H<sub>66</sub>N<sub>8</sub>O<sub>7</sub>  
**Batch Molecular Weight:** 746.96  
**Physical Appearance:** White lyophilised solid  
**Counter Ion:** Acetate  
**Solubility:** Soluble to 0.80 mg/ml in water  
**Storage:** Store at -20°C  
**Peptide Sequence:** Lys(Ψ(CH<sub>2</sub>-NH))-Lys-Pro-Tyr-Ile-Leu

## 2. ANALYTICAL DATA

**HPLC:** Shows 99.5% purity  
**Mass Spectrum:** Consistent with structure

## 3. AMINO ACID ANALYSIS DATA

Amino Acid		Theoretical	Actual	Amino Acid		Theoretical	Actual
Ala				Lys	2.00		Not Detected
Arg				Met			
Asx				Phe			
Cys				Pro	1.00		0.99
Glx				Ser			
Gly				Thr			
His				Trp			
Ile	1.00		1.01	Tyr	1.00		1.01
Leu	1.00		0.99	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  
Tel:+1 612 379 2956

**Product Name:** JMV 449**Catalog No.:** 1998**10**

CAS Number: 139026-66-7

**Description:**

JMV 449 is a potent, metabolically stable neurotensin receptor agonist peptide ( $IC_{50}$  = 0.15 nM for inhibition of [ $^{125}I$ ]-NT binding to neonatal mouse brain;  $EC_{50}$  = 1.9 nM for contraction of guinea pig ileum). Produces long-lasting hypothermic, neuroprotective and analgesic effects in mice following central administration in vivo.

**Physical and Chemical Properties:**Batch Molecular Formula:  $C_{38}H_{66}N_8O_7$ 

Batch Molecular Weight: 746.96

Physical Appearance: White lyophilised solid

**Peptide Sequence:**Lys( $\Psi$ ( $CH_2$ -NH))-Lys-Pro-Tyr-Ile-Leu**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:** 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.

**References:**

**Torup *et al*** (2003) Neuroprotective effect of the neurotensin analogue JMV-449 in a mouse model of permanent middle cerebral ischaemia. *Neurosci.Lett.* **351** 173. PMID: 14623134.

**Dubuc *et al*** (1992) JMV 449: a pseudopeptide analogue of neurotensin-(8-13) with highly potent and long-lasting hypothermic and analgesic effects in the mouse. *Eur.J.Pharmacol.* **219** 327. PMID: 1425958.

**Lugrin *et al*** (1991) Reduced peptide bond pseudopeptide analogues of neurotensin: binding and biological activities, and in vitro metabolic stability. *Eur.J.Pharmacol.* **205** 191. PMID: 1812009.

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

Tel: +1 612 379 2956