

Certificate of Analysis

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Product Name: MEN 10627

Catalog No.: 1633

Batch No.: 1

CAS Number: 157351-81-0

1. PHYSICAL AND CHEMICAL PROPERTIES

| | |
|---------------------------------|---|
| Batch Molecular Formula: | C ₃₈ H ₄₈ N ₈ O ₇ S |
| Batch Molecular Weight: | 760.9 |
| Physical Appearance: | White lyophilised solid |
| Net Peptide Content: | 66% |
| Solubility: | Soluble to 0.10 mg/ml in DMSO |
| Storage: | Desiccate at -20°C |
| Peptide Sequence: | cyclo(Dpr-Leu-Met-Asp-Trp-Phe) (4β-1β lactam) |

2. ANALYTICAL DATA

| | |
|-----------------------|---------------------------|
| HPLC: | Shows >95% purity |
| Mass Spectrum: | Consistent with structure |

3. AMINO ACID ANALYSIS DATA

| Amino Acid | Theoretical | Actual | Amino Acid | Theoretical | Actual |
|------------|-------------|--------|------------|-------------|--------|
| Ala | | | Lys | | |
| Arg | | | Met | | |
| Asx | 1.00 | 0.97 | Phe | 1.00 | 0.99 |
| Cys | | | Pro | | |
| Glx | | | Ser | | |
| Gly | | | Thr | | |
| His | | | Trp | 1.00 | |
| Ile | | | Tyr | | |
| Leu | 1.00 | 1.04 | Val | | |

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

Product Name: MEN 10627**Catalog No.:** 1633**Batch No.:** 1

CAS Number: 157351-81-0

Description:

Potent and selective competitive tachykinin NK₂ receptor antagonist (pK_B = 8.1 - 10.1). Displays 100- and > 1200-fold selectivity over NK₁ and NK₃ receptors respectively. Active in vivo.

Physical and Chemical Properties:Batch Molecular Formula: C₃₈H₄₈N₈O₇S

Batch Molecular Weight: 760.9

Physical Appearance: White lyophilised solid

Peptide Sequence:

cyclo(Dpr-Leu-Met-Asp-Trp-Phe) (4β-1β lactam)

Storage: Desiccate at -20°C**Solubility & Usage Info:**

Soluble to 0.10 mg/ml in DMSO

This product is supplied as a lyophilised solid and may be very hard to visualise. 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: 66% (Remaining weight made up of counterions and residual water).**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:

Maggi et al (1994) MEN 10,627, a novel polycyclic peptide antagonist of tachykinin NK₂ receptors. *J.Pharmacol.Exp.Ther.* **271** 1489. PMID: 7996462.

Quartara et al (1996) A review of the design, synthesis and biological activity of the bicyclic hexapeptide tachykinin NK₂ antagonist MEN 10627. *Regul.Pept.* **65** 55. PMID: 8876036.

Lecci et al (1998) The role of tachykinin NK₁ and NK₂ receptors in atropine-resistant colonic propulsion in anaesthetized guinea-pigs. *Br.J.Pharmacol.* **124** 27. PMID: 9630339.

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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