

Certificate of Analysis

www.tocris.com

Product Name: Mastoparan

Catalog No.: 1192

Batch No.: 11

CAS Number: 72093-21-1

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: C₇₀H₁₃₁N₁₉O₁₅
Batch Molecular Weight: 1479
Physical Appearance: White lyophilised solid
Net Peptide Content: 70.8%
Counter Ion: TFA
Solubility: Soluble to 1 mg/ml in water
Storage: Desiccate at -20°C
Peptide Sequence: Ile-Asn-Leu-Lys-Ala-Leu-Ala-Ala-Leu-Ala-
Lys-Lys-Ile-Leu-NH₂

2. ANALYTICAL DATA

HPLC: Shows 95.7% purity
Mass Spectrum: Consistent with structure

3. AMINO ACID ANALYSIS DATA

Amino Acid Theoretical Actual			Amino Acid Theoretical Actual		
Ala	4.00	3.95	Lys	3.00	3.07
Arg			Met		
Asx	1.00	0.89	Phe		
Cys			Pro		
Glx			Ser		
Gly			Thr		
His			Trp		
Ile	2.00	2.00	Tyr		
Leu	4.00	4.08	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: Mastoparan

Catalog No.: 1192

Batch No.: 11

CAS Number: 72093-21-1

Description:

Peptide activator of G_i and G_o.

Physical and Chemical Properties:

Batch Molecular Formula: C₇₀H₁₃₁N₁₉O₁₅

Batch Molecular Weight: 1479

Physical Appearance: White lyophilised solid

Peptide Sequence:

Ile-Asn-Leu-Lys-Ala-Leu-Ala-Ala-Leu-Ala-
Lys-Lys-Ile-Leu-NH₂

Storage: Desiccate at -20°C

Solubility & Usage Info:

Soluble to 1 mg/ml in water

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.

Net Peptide Content: 70.8% (Remaining weight made up of counterions and residual water).

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:

Longland *et al* (1999) The mechanism of inhibition of the Ca²⁺-ATPase by mastoparan. *J.Biol.Chem.* **274** 14799. PMID: 10329678.

Higashijima and Ros (1991) Mapping of the mastoparan-binding site on G proteins. Cross-linking of [¹²⁵I-Tyr³, Cys¹¹]mastoparan to G_o. *J.Biol.Chem.* **266** 12655. PMID: 1905730.

Raynor *et al* (1991) Membrane interactions of amphiphilic polypeptides mastoparan, melittin, plymixin B and cardiotoxin. *J.Biol.Chem.* **266** 2753. PMID: 1847132.

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