

Certificate of Analysis

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Product Name: BAM (8-22)

Catalog No.: 1763

Batch No.: 11

CAS Number: 412961-36-5

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: C₉₁H₁₂₇N₂₅O₂₃S
Batch Molecular Weight: 1971.22
Physical Appearance: White lyophilised solid
Net Peptide Content: 73%
Counter Ion: TFA
Solubility: Soluble to 1 mg/ml in water
Storage: Desiccate at -20°C
Peptide Sequence: Val-Gly-Arg-Pro-Glu-Trp-Trp-Met-Asp-Tyr-
Gln-Lys-Arg-Tyr-Gly

2. ANALYTICAL DATA

HPLC: Shows 97.2% purity
Mass Spectrum: Consistent with structure

3. AMINO ACID ANALYSIS DATA

Amino Acid	Theoretical	Actual	Amino Acid	Theoretical	Actual
Ala			Lys	1.00	0.96
Arg	2.00	2.05	Met	1.00	0.94
Asx	1.00	1.02	Phe		
Cys			Pro	1.00	1.01
Glx	2.00	2.07	Ser		
Gly	2.00	1.99	Thr		
His			Trp		
Ile			Tyr	2.00	1.94
Leu			Val	1.00	1.03

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

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CAS Number: 412961-36-5

Description:

Endogenous peptide fragment that is a selective agonist for the sensory neuron specific receptor (EC₅₀ values are 28 and 14 nM for SNSR3 and SNSR4 respectively); first isolated from bovine adrenal medulla. Unlike BAM 22P (Cat. No. 1650), does not contain the met-enkephalin motif therefore displays no affinity for opioid receptors.

Physical and Chemical Properties:Batch Molecular Formula: C₉₁H₁₂₇N₂₅O₂₃S

Batch Molecular Weight: 1971.22

Physical Appearance: White lyophilised solid

Peptide Sequence:Val-Gly-Arg-Pro-Glu-Trp-Trp-Met-Asp-Tyr-
Gln-Lys-Arg-Tyr-Gly**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: 73% (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:

Chen and Ikeda (2004) Modulation of ion channels and synaptic transmission by a human sensory neuron-specific G-protein-coupled receptor, SNSR4/mrgX1, heterologously expressed in cultured rat neurons. *J. Neurosci.* **24** 5044. PMID: 15163697.

Lembo et al (2002) Proenkephalin A gene products activate a new family of sensory neuron-specific GPCRs. *Nat. Neurosci.* **5** 201. PMID: 11850634.

Simonin and Kieffer (2002) Two faces for an opioid peptide - and more receptors for pain research. *Nat. Neurosci.* **5** 185. PMID: 11865303.

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