

Certificate of Analysis

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Product Name: [Ala¹¹³]-MBP (104-118)

Catalog No.: 1901

Batch No.: 1

CAS Number: 99026-78-5

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: C₆₇H₁₀₄N₂₀O₁₉
Batch Molecular Weight: 1493.68
Physical Appearance: White lyophilised solid
Net Peptide Content: 84%
Solubility: Soluble to 2 mg/ml in 0.25% acetic acid
Storage: Desiccate at -20°C
Peptide Sequence: Gly-Lys-Gly-Arg-Gly-Leu-Ser-Leu-Ser-Ala-
Phe-Ser-Trp-Gly-Ala

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	2.00	2.03	Lys	1.00	1.00		
Arg	1.00	0.97	Met				
Asx			Phe	1.00	1.01		
Cys			Pro				
Glx			Ser	3.00	2.95		
Gly	4.00	4.01	Thr				
His			Trp	1.00			
Ile			Tyr				
Leu	2.00	2.00	Val				

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

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Description:

Synthetic peptide analog of bovine myelin basic protein (MBP).
Non-competitive inhibitor of PKC (IC₅₀ = 28 - 62 mM).

Physical and Chemical Properties:

Batch Molecular Formula: C₆₇H₁₀₄N₂₀O₁₉

Batch Molecular Weight: 1493.68

Physical Appearance: White lyophilised solid

Peptide Sequence:

Gly-Lys-Gly-Arg-Gly-Leu-Ser-Leu-Ser-Ala-
Phe-Ser-Trp-Gly-Ala

Storage: Desiccate at -20°C

Solubility & Usage Info:

Soluble to 2 mg/ml in 0.25% acetic acid

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: 84% (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:

Turner et al (1985) Substrate specificity of phospholipid/Ca²⁺ dependent protein kinase as probed with synthetic peptide fragments of the bovine myelin basic protein. *J.Biol.Chem.* **260** 11503. PMID: 2413012.

Su et al (1986) Synthetic myelin basic protein peptide analogs are specific inhibitors of phospholipid/calcium-dependent protein kinase (protein kinase C). *Biochem.Biophys.Res.Comm.* **134** 78. PMID: 2418828.

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