

Certificate of Analysis

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Product Name: PLP (139-151)

Catalog No.: 2567

Batch No.: 21

CAS Number: 122018-58-0

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula:	C ₇₂ H ₁₀₄ N ₂₀ O ₁₇
Batch Molecular Weight:	1521.74
Physical Appearance:	White lyophilised solid
Net Peptide Content:	89%
Counter Ion:	TFA
Solubility:	Soluble to 2 mg/ml in water
Storage:	Desiccate at -20°C
Peptide Sequence:	His-Ser-Leu-Gly-Lys-Trp-Leu-Gly-His-Pro-Asp-Lys-Phe

2. ANALYTICAL DATA

HPLC:	Shows 97.5% purity
Mass Spectrum:	Consistent with structure

3. AMINO ACID ANALYSIS DATA

Amino Acid Theoretical Actual			Amino Acid Theoretical Actual		
Ala			Lys	2.00	2.04
Arg			Met		
Asx	1.00	1.00	Phe	1.00	1.02
Cys			Pro	1.00	1.03
Glx			Ser	1.00	0.93
Gly	2.00	1.89	Thr		
His	2.00	2.15	Trp	1.00	Detected
Ile			Tyr		
Leu	2.00	2.04	Val		

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

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Catalog No.: 2567

Batch No.: 21

CAS Number: 122018-58-0

Description:

Synthetic myelin proteolipid protein (PLP) fragment. Immunization with this peptide induces severe clinical and histological experimental allergic encephalomyelitis (EAE), an animal model of multiple sclerosis.

Physical and Chemical Properties:

Batch Molecular Formula: C₇₂H₁₀₄N₂₀O₁₇

Batch Molecular Weight: 1521.74

Physical Appearance: White lyophilised solid

Peptide Sequence:

His-Ser-Leu-Gly-Lys-Trp-Leu-Gly-His-Pro-Asp-Lys-Phe

Storage: Desiccate at -20°C

CAUTION - This product is light sensitive and we recommend that the solid material and any solutions obtained are protected from exposure to light.

Solubility & Usage Info:

Soluble to 2 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: 89% (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:

Kuchroo et al (1991) Induction of experimental allergic encephalomyelitis by myelin proteolipid-protein-specific T cell clones and synthetic peptides. *Pathobiology*. **59** 305. PMID: 1716908.

Sobel et al (1990) Acute experimental allergic encephalomyelitis in SJL/J mice induced by a synthetic peptide of myelin proteolipid protein. *J.Neuropathol.Exp.Neurol.* **49** 468. PMID: 2273404.

Tuohy et al (1989) Identification of an encephalitogenic determinant of myelin proteolipid protein for SJL mice. *J.Immunol.* **142** 1523. PMID: 2465343.

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