

Certificate of Analysis

Print Date: Sep 16th 2024

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Product Name: PLP (139-151) Catalog No.: 2567 Batch No.: 26

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

Counter Ion: TFA

Solubility: Soluble to 2 mg/ml in water

Storage: Store at -20°C

Peptide Sequence: His-Ser-Leu-Gly-Lys-Trp-Leu-Gly-His-Pro-

Asp-Lys-Phe

2. ANALYTICAL DATA

HPLC: Shows 98.4% purity

Mass Spectrum: Consistent with structure

3. AMINO ACID ANALYSIS DATA

Amino Acid Theoretical Actual				Amino Acid Theoretical Actual		
	Ala			Lys	2.00	2.01
	Arg			Met		
	Asx	1.00	0.99	Phe	1.00	1.01
	Cys			Pro	1.00	1.02
	Glx			Ser	1.00	0.98
	Gly	2.00	1.98	Thr		
	His	2.00	1.94	Trp	1.00	Not Detected
	lle			Tyr		
	Leu	2.00	2.00	Val		

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



Product Information

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Product Name: PLP (139-151) Catalog No.: 2567 26

CAS Number: 122018-58-0

Description:

PLP (139-151) is a 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: $C_{72}H_{104}N_{20}O_{17}$ 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: Store 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 in lyophilized form. It may appear as a solid, gel or film and 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.

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 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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