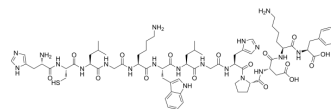


PLP (139-151)

Cat. No.:	HY-P0129
CAS No.:	131334-43-5
Molecular Formula:	C ₇₂ H ₁₀₄ N ₂₀ O ₁₆ S
Molecular Weight:	1537.79
Sequence:	His-Cys-Leu-Gly-Lys-Trp-Leu-Gly-His-Pro-Asp-Lys-Phe
Sequence Shortening:	HCLGKWLGHDPKF
Target:	Others
Pathway:	Others
Storage:	Sealed storage, away from moisture
	Powder -80°C 2 years
	-20°C 1 year



* In solvent : -80°C, 6 months; -20°C, 1 month (sealed storage, away from moisture)

SOLVENT & SOLUBILITY

In Vitro	H ₂ O : 100 mg/mL (65.03 mM; Need ultrasonic)				
	Preparing Stock Solutions	Solvent	1 mg	5 mg	10 mg
		Concentration			
		1 mM	0.6503 mL	3.2514 mL	6.5028 mL
5 mM		0.1301 mL	0.6503 mL	1.3006 mL	
	10 mM	0.0650 mL	0.3251 mL	0.6503 mL	
Please refer to the solubility information to select the appropriate solvent.					
In Vivo	1. Add each solvent one by one: PBS Solubility: 50 mg/mL (32.51 mM); Clear solution; Need ultrasonic				

BIOLOGICAL ACTIVITY

Description	PLP (139-151) is amino acid residue 139 to 151 of myelin proteolipid protein (PLP) used to induce experimental autoimmune encephalomyelitis (EAE).
In Vitro	Severe clinical and histological EAE could be induced by adoptive transfer of the peptide-specific T cell line and 3 of 4 T cell clones. The T cell line/clones all responded strongly to PLP (139-151) in in vitro proliferative assays. Line SPL and all of the clones show strong proliferative response to the whole PLP molecule and to PLP (139-151) ^[1] . MCE has not independently confirmed the accuracy of these methods. They are for reference only.
In Vivo	PLP (139-151) can be used in animal modeling to construct autoimmune encephalomyelitis model.

PLP (139-151) induces acute experimental allergic encephalomyelitis (EAE) in SJL/J mice. Beginning on Day 9, the mice treated with PLP (139-151) show signs of EAE and the disease progressed rapidly to paralysis. Central nervous system inflammation, edema, gliosis, and demyelination are found in all mice killed between Days 10 and 28^[2]. Young male SJL mice immunized with a major encephalitogenic peptide of myelin, PLP 139-151, develop initial clinical and histological symptoms of EAE with a severity similar to age-matched females; however, unlike females, male mice does not relapse. Significant T cell proliferation to PLP 139-151, but not to other PLP and myelin basic protein (MBP) epitopes, is observed in both males and females during the initial episode, recovery, and first relapse of clinical disease^[3].

MCE has not independently confirmed the accuracy of these methods. They are for reference only.

REFERENCES

- [1]. Kuchroo VK, et al. Induction of experimental allergic encephalomyelitis by myelin proteolipid-protein-specific T cell clones and synthetic peptides. *Pathobiology*. 1991;59(5):305-12.
- [2]. Sobel RA, et al. Acute experimental allergic encephalomyelitis in SJL/J mice induced by a synthetic peptide of myelin proteolipid protein. *J Neuropathol Exp Neurol*. 1990 Sep;49(5):468-79.
- [3]. Bebo BF Jr, et al. Male SJL mice do not relapse after induction of EAE with PLP 139-151. *J Neurosci Res*. 1996 Sep 15;45(6):680-9.
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Caution: Product has not been fully validated for medical applications. For research use only.

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