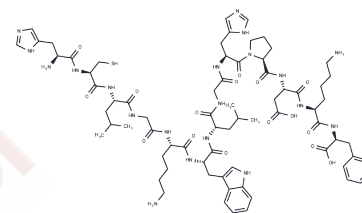


PLP (139-151)

Chemical Properties

CAS No. :	131334-43-5
Formula:	C72H104N20O16S
Molecular Weight:	1537.79
Storage:	Keep away from moisture, Powder: -20°C for 3 years In solvent: -80°C for 1 year <small>Actual storage temperature shall be subject to the COA.</small>



Biological Description

Description	PLP (139-151) is the amino acid fragment from positions 139 to 151 of myelin proteolipid protein (PLP), and can be used to induce the relapsing-remitting experimental autoimmune encephalomyelitis (RR-EAE) model.
Targets(IC50)	Immunology/Inflammation related
In vitro	Method: Lymphocytes isolated from the lymph nodes and spleens of SJL/j mice were treated with various concentrations (0, 1, 3, 10, 20 μ M) of PLP(139-151) peptide. Result: PLP(139-151) induced an antigen-specific proliferative response in lymphocytes from immunized mice and promoted the release of IL-17 and IFN- γ [1].
In vivo	Method: Female SJL/j mice were immunized twice subcutaneously on day 0 and day 7 with an emulsion containing PLP139-151 (200 μ g/mouse) and heat-killed Mycobacterium tuberculosis (8 mg/ml) in incomplete Freund's adjuvant, and received intraperitoneal injections of pertussis toxin (500 ng/mouse) on the day of immunization and 24 hours later to induce relapsing-remitting experimental autoimmune encephalomyelitis (RR-EAE). Result: Immunization with PLP139-151 induced typical RR-EAE in SJL/j mice, characterized by progressively worsening clinical scores, central nervous system inflammatory infiltration, demyelination, and axonal loss [1]. Method: Female SJL/j mice were subcutaneously immunized with an emulsion containing 150 μ g of PLP(139-151) and complete Freund's adjuvant (supplemented with 4 mg/mL Mycobacterium tuberculosis), and received intraperitoneal injections of 200 ng of pertussis toxin on days 0 and 2 to establish a relapsing-remitting experimental autoimmune encephalomyelitis (RR-EAE) model. Result: Following PLP139-151 immunization, model mice developed severe clinical symptoms (flaccid tail, hind limb paralysis), CNS inflammation and demyelination, elevated serum levels of IFN- γ and IL-17A, and increased proportions of Th1 and Th17 cells [2].

Solubility Information

Solubility	H2O: 80 mg/mL (52.02 mM), Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)
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Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	0.6503 mL	3.2514 mL	6.5028 mL
5 mM	0.1301 mL	0.6503 mL	1.3006 mL
10 mM	0.065 mL	0.3251 mL	0.6503 mL
50 mM	0.013 mL	0.065 mL	0.1301 mL

Please select the appropriate solvent to prepare the stock solution, according to the solubility of the product in different solvents. Please use it as soon as possible.

Note: The dilution table applies only to solid products. For liquid products, please calculate the stock solution based on the stated concentration and/or density.

Reference

Esposito M, et al. Rapamycin inhibits relapsing experimental autoimmune encephalomyelitis by both effector and regulatory T cells modulation. *J Neuroimmunol.* 2010;220(1-2):52-63.

Qiu X, et al. Pien Tze Huang Alleviates Relapsing-Remitting Experimental Autoimmune Encephalomyelitis Mice by Regulating Th1 and Th17 Cells. *Front Pharmacol.* 2018;9:1237.

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.

Inhibitor · Natural Compounds · Compound Libraries · Recombinant Proteins

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Tel:781-999-4286 E_mail:info@targetmol.com Address:34 Washington Street,Wellesley Hills,MA 02481