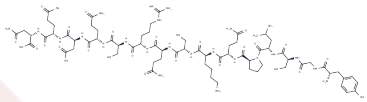
Data Sheet (Cat.No.TP1092)

TargetMol

Myelin Basic Protein (MBP) (68-82), guinea pig

Chemical Properties



CAS No. : 98474-59-0

Formula: C71H113N23O28

Molecular Weight: 1736.79

Storage: Keep away from moisture
Powder: -20°C for 3 years | In solvent: -80°C for 1 year
Actual storage temperature shall be subject to the COA.

Biological Description

Description	Myelin Basic Protein (MBP) (68-82), guinea pig, is a peptide with the sequence Tyr-Gly-Ser-Leu-Pro-Gln-Lys-Ser-Gln-Arg-Ser-Gln-Asp-Glu-Asn and represents a fragment of myelin basic protein (MBP).
Targets(IC50)	Others
In vitro	Multiple sclerosis, the most common autoimmune disorder affecting the central nervous system, is studied by analyzing whole blood samples for the activation capacity of CD4+ and CD8+ T-lymphocytes using human total myelin basic protein (MBP), human MBP 104-118 fragment, and guinea pig MBP (68-82) fragment. A significant increase in activated T-lymphocytes was observed for all three tested MBPs (p0.01), with the most prominent increase following human total MBP, followed by human 104-118 fragment, and the smallest increase with guinea pig MBP (68-82) (human total MBP>huMBP-104-118>guinea pig MBP (68-82))[1].
In vivo	This study investigates the impact of preemptive bee venom acupuncture (BVA) treatment, starting from the day of myelin basic protein (MBP) (68-82) immunization, on the onset and progression of experimental autoimmune encephalomyelitis (EAE) and associated weight loss. After immunization, rats in the MBP group began showing early signs of EAE, such as partial loss of tail tone, within 5-9 days, progressing to more severe neurological symptoms, including various degrees of limb paralysis, between 10-16 days. In contrast, rats treated with BVA exhibited milder neurological impairments, with a dose-dependent reduction in symptom severity and delayed onset of symptoms (BVA 0.8 mg/kg, 6.4±0.6 days) observed 11-15 days post-immunization. Additionally, the maximum clinical score was significantly lower in the BVA-treated groups (BVA 0.25 mg/kg, 3.7±0.2; BVA 0.8 mg/kg, 2.8±0.3) compared to the untreated MBP group. Moreover, while the MBP group's mean body weight decreased, the MBP + BVA group's mean body weight significantly increased compared to the MBP-only group, highlighting a potential protective effect of BVA against EAE-induced weight loss and symptom severity.

Solubility Information

Solubility	DMSO: 10 mM,Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	0.5758 mL	2.8789 mL	5.7577 mL
5 mM	0.1152 mL	0.5758 mL	1.1515 mL
10 mM	0.0576 mL	0.2879 mL	0.5758 mL
50 mM	0.0115 mL	0.0576 mL	0.1152 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

Arneth B. Early activation of CD4