

MOG peptide (35-55)

Cat. No.:	HY-P3719	
CAS No.:	2022956-48-3	
Molecular Formula:	C ₁₁₈ H ₁₇₈ N ₃₆ O ₂₈ S	
Molecular Weight:	2580.97	MEVGWYRSPFSRVVHLYRNGK-NH ₂
Sequence Shortening:	MEVGWYRSPFSRVVHLYRNGK-NH ₂	
Target:	Others	
Pathway:	Others	
Storage:	Sealed storage, away from moisture and light	
	Powder	-80°C 2 years
		-20°C 1 year
	* In solvent : -80°C, 6 months; -20°C, 1 month (sealed storage, away from moisture and light)	

SOLVENT & SOLUBILITY

In Vitro

H₂O : ≥ 100 mg/mL (38.75 mM)
 * "≥" means soluble, but saturation unknown.

Preparing Stock Solutions	Solvent	Mass	1 mg	5 mg	10 mg
	Concentration				
	1 mM		0.3875 mL	1.9373 mL	3.8745 mL
	5 mM		0.0775 mL	0.3875 mL	0.7749 mL
	10 mM		0.0387 mL	0.1937 mL	0.3875 mL

Please refer to the solubility information to select the appropriate solvent.

BIOLOGICAL ACTIVITY

Description

MOG peptide (35-55) is a fragment 35-55 of myelin oligodendrocyte glycoprotein (MOG) immunogenic peptide. MOG peptide (35-55) is specific to expanded CD4⁺ T cells, and induces experimental autoimmune encephalomyelitis (EAE) in animal model^{[1][2][3]}.

In Vitro

The expanded CD4⁺ T cells are largely specific for the myelin oligodendrocyte glycoprotein (MOG) immunogenic peptide 35-55 (MOG35-55), while clonally expanded CD8⁺ T cells were non-responsive to myelin peptides or proteins^[1].
 MCE has not independently confirmed the accuracy of these methods. They are for reference only.

In Vivo

MOG peptide (35-55) (3 mg/mL for 0.1 mL; s.c.; single dose) results active induction of experimental autoimmune encephalomyelitis (EAE) in mice^[2].
 MOG peptide (35-55) (200 µg; s.c.; single dose) induces a increasing concentration of the eosinophil chemoattractant eotaxin-1 in the spinal cord in the course of EAE induced in C57BL/6 mice^[3].

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Animal Model:	129S1/SvImJ, C57BL/6 and C57BL/6 X SJL hybrid ^[2]
Dosage:	3 mg/mL, 0.1 mL per mice; accompanied with CFA and 4 mg/mL Mycobacterium tuberculosis
Administration:	Subcutaneous injection; single dose
Result:	Showed the expected signs of experimental autoimmune encephalomyelitis (EAE), which started with tail loss of tonus and continued in an ascending fashion in mice immunized with MOG35-55.
Animal Model:	C57BL/6 mice (8-12 weeks) ^[3]
Dosage:	200 µg
Administration:	Subcutaneous injection; single dose; analyzed at pre-onset (day 7 post immunization), onset (day 9-13 post immunization) and peak (day 17-19 post immunization)
Result:	Increased eosinophil abundance in the spinal cord increases in the course of EAE.

REFERENCES

- [1]. Saligrama N, et al. Opposing T cell responses in experimental autoimmune encephalomyelitis. *Nature*. 2019 Aug;572(7770):481-487.
- [2]. Giralt M, et al. Active Induction of Experimental Autoimmune Encephalomyelitis (EAE) with MOG35-55 in the Mouse. *Methods Mol Biol*. 2018;1791:227-232.
- [3]. Ruppova K, et al. Eosinophils are dispensable for development of MOG35-55-induced experimental autoimmune encephalomyelitis in mice. *Immunol Lett*. 2021 Nov;239:72-76.

Caution: Product has not been fully validated for medical applications. For research use only.

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