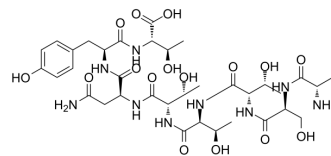


Peptide T

Cat. No.:	HY-P0272
CAS No.:	106362-32-7
Molecular Formula:	C ₃₅ H ₅₅ N ₉ O ₁₆
Molecular Weight:	857.86
Sequence:	Ala-Ser-Thr-Thr-Thr-Asn-Tyr-Thr
Sequence Shortening:	ASTTTNYT
Target:	HIV
Pathway:	Anti-infection
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 (116.57 mM; Need ultrasonic)				
		Solvent Concentration	Mass 1 mg	5 mg	10 mg
	Preparing Stock Solutions	1 mM	1.1657 mL	5.8285 mL	11.6569 mL
		5 mM	0.2331 mL	1.1657 mL	2.3314 mL
		10 mM	0.1166 mL	0.5828 mL	1.1657 mL
Please refer to the solubility information to select the appropriate solvent.					

BIOLOGICAL ACTIVITY

Description	Peptide T is an octapeptide from the V2 region of HIV-1 gp120. Peptide T is a ligand for the CD4 receptor and prevents binding of HIV to the CD4 receptor.
IC₅₀ & Target	CD4, HIV ^[1]
In Vitro	Peptide T acts to block viral entry as it inhibits in the MAGI cell assay and blocks infection in the luciferase reporter assay using HIV virions pseudotyped with ADA envelope. Peptide T selectively inhibits HIV replication using chemokine receptor CCR5 compared to CXCR4 ^[2] . Peptide T at 10 ⁻⁸ M induces IL-10 production by the human Th2 cell line and PBMC. Also peptide T at 10 ⁻⁹ M concentration significantly inhibits IFN-γ production by PBMC ^[3] . MCE has not independently confirmed the accuracy of these methods. They are for reference only.
In Vivo	Peptide T is administered subcutaneously at different doses and phases of the experimental autoimmune

encephalomyelitis (EAE) disease, but Peptide T neither prevents nor ameliorates EAE^[4].
MCE has not independently confirmed the accuracy of these methods. They are for reference only.

PROTOCOL

Cell Assay ^[3]

Peripheral blood mononuclear cells are stimulated with PHA (5 mg/mL) along with various concentrations of peptide T (10^{-6} - 10^{-12} M) for 48 h at 37°C. Supernatants are collected and frozen until analysis^[3].

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

Animal Administration ^[4]

Rats^[4]

Peptide T (125, 250, 500, 800 µg) is randomly given subcutaneously to Female Lewis rats aged 6-8 weeks in the hind foot flanks in a final volume of 0.2 mL. Control animals receive the same volume of saline alone^[4].

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

REFERENCES

- [1]. Ruff MR, et al. Peptide T[4-8] is core HIV envelope sequence required for CD4 receptor attachment. *Lancet*. 1987 Sep 26;2(8561):751.
- [2]. Ruff MR, et al. Peptide T inhibits HIV-1 infection mediated by the chemokine receptor-5 (CCR5). *Antiviral Res*. 2001 Oct;52(1):63-75.
- [3]. Raychaudhuri SP, et al. Immunomodulatory effects of peptide T on Th 1/Th 2 cytokines. *Int J Immunopharmacol*. 1999 Sep;21(9):609-15.
- [4]. Sáez-Torres I, et al. Peptide T does not ameliorate experimental autoimmune encephalomyelitis (EAE) in Lewis rats. *Clin Exp Immunol*. 2000 Jul;121(1):151-6.

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

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