Data Sheet (Cat.No.TP1846)

TargetMol
A DRUG SCREENING EXPERT

Tuftsin diacetate

Chemical Properties

CAS No.:	72103-53-8
Formula:	C25H48N8O10
Molecular Weight:	620.7
Appearance:	N/A
Storage:	0-4℃ for short term (days to weeks), or -20℃ for long term (months).

Biological Description

Description	Tuftsin diacetate, a tetrapeptide, is a macrophage/microglial activator. Tuftsin is a tetrapeptide, Thr-Lys-Pro-Arg, which resides in the Fc-domain of the heavy chain of immunoglobulin G. Tuftsin possesses a broad spectrum of activities related primarily to the immune system function and exerts on phagocytic cells, notably on macrophages.
In vitro	Tuftsin is a tetrapeptide, Thr-Lys-Pro-Arg, which resides in the Fc-domain of the heavy chain of immunoglobulin G. Tuftsin possesses a broad spectrum of activities related primarily to the immune system function and exerts on phagocytic cells, notably on macrophages. Tuftsin's capacity to augment cellular activation is mediated by specific receptors that are identified, characterized, and recently isolated from rabbit peritoneal granulocytes[1]. Tuftsin, a macrophage/microglial activator, dramatically improves the clinical course of experimental autoimmune encephalomyelitis (EAE), a well-established animal model for MS. Tuftsin administration correlates with upregulation of the immunosuppressive Helper-2 Tcell (Th2) cytokine transcription factor GATA-3. Tuftsin promotes phagocytic activity for cells of monocytic origin, such as neutrophils, macrophages and microglia, all of which are thought to express Tuftsin receptors[2].

Solubility Information

Solubility	H2O: Soluble (< 1 mg/ml refers to the product slightly soluble or insoluble)

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	1.611 mL	8.055 mL	16.111 mL
5 mM	0.322 mL	1.611 mL	3.222 mL
10 mM	0.161 mL	0.806 mL	1.611 mL
50 mM	0.032 mL	0.161 mL	0.322 mL

Please select the appropriate solvent to prepare the stock solution, according to the solubility of the product in different solvents. The storage conditions and period of the stock solution: - 80 ℃ for 6 months; - 20 ℃ for 1 month. Please use it as soon as possible.

Reference

1. Fridkin M, et al. Tuftsin: its chemistry, biology, and clinical potential. Crit Rev Biochem Mol Biol. 1989;24(1):1-40.
2. Wu M, et al. Tuftsin promotes an anti-inflammatory switch and attenuates symptoms in experimentalautoimmune encephalomyelitis. PLoS One. 2012;7(4):e34933.

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