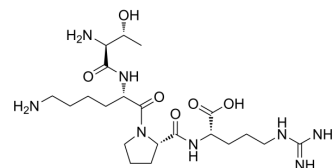


Tuftsins

Cat. No.:	HY-P0240
CAS No.:	9063-57-4
Molecular Formula:	C ₂₁ H ₄₀ N ₈ O ₆
Molecular Weight:	500.59
Sequence:	Thr-Lys-Pro-Arg
Sequence Shortening:	TKPR
Target:	Endogenous Metabolite
Pathway:	Metabolic Enzyme/Protease
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 (199.76 mM; Need ultrasonic)					
		Solvent	Mass	1 mg	5 mg	10 mg
	Preparing Stock Solutions	Concentration				
		1 mM		1.9976 mL	9.9882 mL	19.9764 mL
5 mM			0.3995 mL	1.9976 mL	3.9953 mL	
		10 mM	0.1998 mL	0.9988 mL	1.9976 mL	
Please refer to the solubility information to select the appropriate solvent.						
In Vivo	1. Add each solvent one by one: PBS Solubility: 100 mg/mL (199.76 mM); Clear solution; Need ultrasonic					

BIOLOGICAL ACTIVITY

Description	Tuftsins is a tetrapeptide. Tuftsins is a macrophage/microglial activator.
IC₅₀ & Target	Human Endogenous Metabolite
In Vitro	Tuftsins is a tetrapeptide, Thr-Lys-Pro-Arg, which resides in the Fc-domain of the heavy chain of immunoglobulin G. Tuftsins possesses a broad spectrum of activities related primarily to the immune system function and exerts on phagocytic cells, notably on macrophages. Tuftsins's capacity to augment cellular activation is mediated by specific receptors that are identified, characterized, and recently isolated from rabbit peritoneal granulocytes ^[1] . Tuftsins, a macrophage/microglial activator, dramatically improves the clinical course of experimental autoimmune encephalomyelitis (EAE), a well-established animal model for MS. Tuftsins 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].
MCE has not independently confirmed the accuracy of these methods. They are for reference only.

CUSTOMER VALIDATION

- Biochem Pharmacol. 2022 May;199:115030.
- bioRxiv. 2023 Mar 25.

See more customer validations on www.MedChemExpress.com

REFERENCES

[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 experimental autoimmune encephalomyelitis. PLoS One. 2012;7(4):e34933.

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

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