TLQP-21 TFA

Cat. No.:	HY-P1345A
Molecular Formula:	$C_{109}H_{171}F_3N_{40}O_{28}$
Molecular Weight:	2546.77
Sequence:	Thr-Leu-Gln-Pro-Pro-Ala-Ser-Ser-Arg-Arg-Arg-His-Phe-His-His-Ala-Leu-Pro-Pro-Ala-Arg TLQPPASSRRRHFHHALPPAR (TFA salt)
Sequence Shortening:	TLQPPASSRRRHFHHALPPAR
Target:	Complement System
Pathway:	Immunology/Inflammation
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_2O : 50 mg/mL (19.63 mM; Need ultrasonic)

Preparing Stock Solutions	Solvent / Mass / Concentration	1 mg	5 mg	10 mg
	1 mM	0.3927 mL	1.9633 mL	3.9265 mL
	5 mM	0.0785 mL	0.3927 mL	0.7853 mL
	10 mM	0.0393 mL	0.1963 mL	0.3927 mL

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

BIOLOGICAL ACTIVITY

Description

TLQP-21 TFA, a VGF-derived peptide endowed of endocrine and extraendocrine properties, is a potent G-protein-coupled receptor complement-3a receptor1 (C3aR1) agonist (EC_{50}: mouse TLQP-21=10.3 μM; human TLQP-21=68.8μM). TLQP-21 TFA activates C3aR1 to induce an increase of intracellular Ca^{2+}. TLQP-21 TFA is used for the research in regulation of nociception and other relevant physiologic functions[1][2].

In Vitro

TLQP-21 TFA is a peptide of 21 amino acids. At a dose of 3 μM TLQP-21 induces up to ~69% of the corresponding contraction promoted by acetylcholine[1][2].

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

CUSTOMER VALIDATION

- Int Immunopharmacol. 2021, 107616.

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REFERENCES

[1]. Elena Bresciani , et al. TLQP-21, A VGF-Derived Peptide Endowed of Endocrine and Extraendocrine Properties: Focus on In Vitro Calcium Signaling. Int J Mol Sci. 2019 Dec 24;21(1):130.

[2]. Cheryl Cero, et al. The TLQP-21 Peptide Activates the G-protein-coupled Receptor C3aR1 via a Folding-Upon-Binding Mechanism. ructure. 2014 Dec 2;22(12):1744-1753.

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