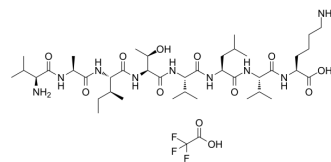


CALP1 TFA

Cat. No.:	HY-P1077A
Molecular Formula:	C ₄₂ H ₇₆ F ₃ N ₉ O ₁₂
Molecular Weight:	956.1
Sequence:	Val-Ala-Ile-Thr-Val-Leu-Val-Lys
Sequence Shortening:	VAITVLVK
Target:	mGluR; Phosphodiesterase (PDE); Apoptosis; Calmodulin
Pathway:	GPCR/G Protein; Neuronal Signaling; Metabolic Enzyme/Protease; Apoptosis; Membrane Transporter/Ion Channel
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

H₂O : 16.67 mg/mL (17.44 mM; Need ultrasonic)

	Solvent Concentration	Mass	1 mg	5 mg	10 mg
Preparing Stock Solutions	1 mM		1.0459 mL	5.2296 mL	10.4592 mL
	5 mM		0.2092 mL	1.0459 mL	2.0918 mL
	10 mM		0.1046 mL	0.5230 mL	1.0459 mL

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

BIOLOGICAL ACTIVITY

Description

CALP1 TFA is a calmodulin (CaM) agonist (K_d of 88 μM) with binding to the CaM EF-hand/Ca²⁺-binding site. CALP1 TFA blocks calcium influx and apoptosis (IC₅₀ of 44.78 μM) through inhibition of calcium channel opening. CALP1 TFA blocks glutamate receptor channels and blocks a store-operated nonselective cation channel. CALP1 TFA activates CaM-dependent phosphodiesterase activity^{[1][2][3][4]}.

IC₅₀ & Target

Kd: 88 μM (Calmodulin)^[4]

CUSTOMER VALIDATION

- Reprod Sci. 2022 Oct 7.

REFERENCES

- [1]. R Houtman, et al. Attenuation of very late antigen-5-mediated adhesion of bone marrow-derived mast cells to fibronectin by peptides with inverted hydropathy to EF-hands. J Immunol. 2001 Jan 15;166(2):861-7.
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- [3]. M K Manion, et al. A new type of Ca(2+) channel blocker that targets Ca(2+) sensors and prevents Ca(2+)-mediated apoptosis. FASEB J. 2000 Jul;14(10):1297-306.
- [4]. M Villain, et al. De novo design of peptides targeted to the EF hands of calmodulin. J Biol Chem. 2000 Jan 28;275(4):2676-85.
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Caution: Product has not been fully validated for medical applications. For research use only.

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