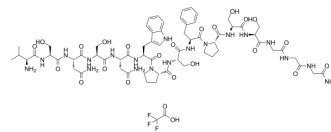


Caloxin 2A1 TFA

Cat. No.:	HY-P3278A
Molecular Formula:	C ₆₆ H ₉₂ F ₃ N ₁₉ O ₂₄
Molecular Weight:	1592.54
Sequence Shortening:	VSNSNWPSFPSSGGG-NH2
Target:	Proton Pump
Pathway:	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 : 100 mg/mL (62.79 mM; Need ultrasonic)
DMSO : 100 mg/mL (62.79 mM; Need ultrasonic)

Preparing Stock Solutions	Solvent Concentration	Mass		
		1 mg	5 mg	10 mg
	1 mM	0.6279 mL	3.1396 mL	6.2793 mL
	5 mM	0.1256 mL	0.6279 mL	1.2559 mL
	10 mM	0.0628 mL	0.3140 mL	0.6279 mL

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

In Vivo

- Add each solvent one by one: 10% DMSO >> 40% PEG300 >> 5% Tween-80 >> 45% saline
Solubility: ≥ 2.5 mg/mL (1.57 mM); Clear solution
- Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline)
Solubility: ≥ 2.5 mg/mL (1.57 mM); Clear solution
- Add each solvent one by one: 10% DMSO >> 90% corn oil
Solubility: ≥ 2.5 mg/mL (1.57 mM); Clear solution

BIOLOGICAL ACTIVITY

Description

Caloxin 2A1 TFA is an extracellular plasma membrane Ca²⁺-ATPase (PMCA) peptide inhibitor. Caloxin 2A1 TFA does not affect basal Mg²⁺-ATPase or Na⁺-K⁺-ATPase^[1].

In Vitro

Caloxin 2A1 TFA inhibits Ca²⁺-Mg²⁺-ATPase in human erythrocyte leaky ghosts, but it does not affect basal Mg²⁺-ATPase or Na⁺-K⁺-ATPase in the ghosts or Ca²⁺-Mg²⁺-ATPase in the skeletal muscle sarcoplasmic reticulum. Caloxin 2A1 TFA also inhibits Ca²⁺-dependent formation of the 140-kDa acid-stable acylphosphate^[1].

Caloxin 2A1 TFA increases airway smooth muscle cells (ASMCs) apoptosis^[2].
MCE has not independently confirmed the accuracy of these methods. They are for reference only.

CUSTOMER VALIDATION

- Adv Funct Mater. 2023 Mar 14.

See more customer validations on www.MedChemExpress.com

REFERENCES

- [1]. J Chaudhary, et al. Caloxin: a novel plasma membrane Ca²⁺ pump inhibitor. Am J Physiol Cell Physiol. 2001 Apr;280(4):C1027-30.
- [2]. Yi-fei Chen, et al. Plasma membrane Ca²⁺-ATPase regulates Ca²⁺ signaling and the proliferation of airway smooth muscle cells. Eur J Pharmacol. 2014 Oct 5;740:733-41.
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Caution: Product has not been fully validated for medical applications. For research use only.

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