Data Sheet (Cat.No.TP1968)

TargetMol

ProTx-I

Chemical Properties

CAS No. : 484598-35-8

Formula: C171H245N53O47S6

Molecular Weight: 3987.51

ECRYWLGGCSAGQTCCKHLVCSRRHGWCVWDGTFS

Storage: Keep away from moisture
Powder: -20°C for 3 years | In solvent: -80°C for 1 year
Actual storage temperature shall be subject to the COA.

Biological Description

Description	Selective CaV3.1 channel blocker (IC50 values are 0.2 and 31.8 μM for hCaV3.1 and hCaV3.2 respectively). Also reversibly inhibits NaV1.8 and blocks KV2.1 channels.
Targets(IC50)	Calcium Channel,Potassium Channel,Sodium Channel

Solubility Information

Solubility	H2O: 2 mg/mL (0.5 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	0.2508 mL	1.2539 mL	2.5078 mL
5 mM	0.0502 mL	0.2508 mL	0.5016 mL
10 mM	0.0251 mL	0.1254 mL	0.2508 mL
50 mM	0.005 mL	0.0251 mL	0.0502 mL

Please select the appropriate solvent to prepare the stock solution, according to the solubility of the product in different solvents. Please use it as soon as possible.

Note: The dilution table applies only to solid products. For liquid products, please calculate the stock solution based on the stated concentration and/or density.

Reference

Ohkubo et al (2010) Tarantula toxin ProTx-I differentiates between human T-type voltage-gated Ca2+ channels Cav3.1 and Cav3.2. J.Pharmacol.Sci. 112 452 PMID:
Ohkubo and Yamazaki (2012) T-type voltage-activated calcium channel Cav3.1, but not Cav3.2, is involved in the inhibition of proliferation and apoptosis in MCF-7 human breast cancer cells. Int.J.Oncol. 41 267 PMID:
Middleton et al (2002) Two tarantula peptides inhibit activation of multiple sodium channels. Biochemistry 41 14734 PMID: