Data Sheet (Cat.No.TP2081)

TargetMol

APETx2

Chemical Properties

CAS No. : 713544-47-9

Formula: C196H280N54O61S6

Molecular Weight: 4561.06

GTACSCGNSKGIYWFYRPSCPTDRGYTGSCRYFLGTCCTPAD
(Disulfide bridge:Cys4-Cys37;Cys6-Cys30;Cys20-Cys38)

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	Acid-sensing ion channel 3 (ASIC3) channel blocker (IC50 values are 63 and 175 nM for homomeric rat and human ASIC3 channels). Also inhibits NaV1.8 and NaV1.2 channels (IC50 values are 55 and 114 nM respectively). Demonstrates analgesic properties against acid-induced and inflammatory pain.
Targets(IC50)	Sodium Channel

Solubility Information

Solubility	H2O: 5 mg/mL (1.1 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	0.2192 mL	1.0962 mL	2.1925 mL
5 mM	0.0438 mL	0.2192 mL	0.4385 mL
10 mM	0.0219 mL	0.1096 mL	0.2192 mL
50 mM	0.0044 mL	0.0219 mL	0.0438 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

Xiong et al (2008) Acid-sensing ion channels (ASICs) as pharmacological targets for neurodegenerative diseases. Curr.Opin.Pharmacol. 8 25 PMID:

Karczewski et al (2010) Reversal of acid-induced and inflammatory pain by the selective ASIC3 inhibitor, APETx2. Br.J.Pharmacol. 161 950 PMID:

Diochot et al (2004) A new sea anemone peptide, APETx2, inhibits ASIC3, a major acid-sensitive channel in sensory neurons. EMBO J. 23 1516 PMID:

Blanchard et al (2012) Inhibition of voltage-gated Na(+) currents in sensory neurones by the sea anemone toxin APETx2. Br.J.Pharmacol. 165 2167 PMID:

Peigneur et al (2012) A natural point mutation changes both target selectivity and mechanism of action of sea anemone toxins. FASEB J. 26 5141 PMID: