

OD1

## Chemical Properties

CAS No. :

Formula: C308H466N90O95S8

Molecular Weight: 7206.1

Keep away from moisture

Storage: 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	Potent rat Nav1.7, human Nav1.4 and rat Nav1.6 channel activator (EC50 values are 7, 10 and 47 nM, respectively). Exhibits minimal activation at mammalian Nav1.2, Nav1.3 and Nav1.5 (EC50 values >3 µM). Inhibits fast inactivation on all channels. Increases peak currents at all voltages and stimulates a persistent Na <sup>+</sup> current at hNav1.7 channel. Increases hyperpolarization at Nav1.4 and Nav1.6 channels. Induces spontaneous pain in vivo.
Targets(IC50)	Sodium Channel

## Solubility Information

Solubility	H2O: 1 mg/mL (0.14 mM), Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)
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## Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	0.1388 mL	0.6939 mL	1.3877 mL
5 mM	0.0278 mL	0.1388 mL	0.2775 mL
10 mM	0.0139 mL	0.0694 mL	0.1388 mL
50 mM	0.0028 mL	0.0139 mL	0.0278 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

Durek et al (2013) Chemical engineering and structural and pharmacological characterization of the  $\alpha$ -scorpion toxin OD1. ACS Chem.Biol. 8 1215 PMID:

Jalali et al (2005) OD1, the first toxin isolated from the venom of the scorpion *Odonthobuthus doriae* active on voltage-gated Na<sup>+</sup> channels. FEBS Lett. 579 4181 PMID:

Maertens et al (2006) Potent modulation of the voltage-gated sodium channel Nav1.7 by OD1, a toxin from the scorpion *Odonthobuthus doriae*. Mol.Pharmacol. 70 405 PMID:

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