
Product Data Sheet

Product Name: OD1
Cat. No.: GC50299

Chemical Properties

Cas. No.

Formula C₃₀₈H₄₆₆N₉₀O₉₅S₈ M.Wt 7206.1

Solubility Soluble in DMSO Storage Store at -20°C

General tips For obtaining a higher solubility, please warm the tube at 37 °C and shake it in the ultrasonic bath for a while. Stock solution can be stored below -20°C for several months.

Shipping Condition Evaluation sample solution : ship with blue ice All other available size: ship with RT, or blue ice upon request.

Structure

Background

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⁺ current at hNav1.7 channel. Increases hyperpolarization at Nav1.4 and Nav1.6 channels. Induces spontaneous pain in vivo.

Durek et al (2013) Chemical engineering and structural and pharmacological characterization of the α-scorpion toxin OD1. ACS Chem.Biol. 8 1215 PMID:23527544
Jjalali et al (2005) OD1, the first toxin isolated from the venom of the scorpion *Odonthobuthus doriae* active on voltage-gated Na⁺ channels. FEBS Lett. 579 4181 PMID:16038905
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:16641312

Caution: Product has not been fully validated for medical applications. For research use only.

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