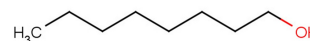


1-Octanol

Chemical Properties

CAS No.:	111-87-5
Formula:	C ₈ H ₁₈ O
Molecular Weight:	130.23
Appearance:	N/A
Storage:	0-4°C for short term (days to weeks), or -20°C for long term (months).



Biological Description

Description	1-Octanol (Octanol), a saturated fatty alcohol, is a T-type calcium channels (T-channels) inhibitor with an IC ₅₀ of 4 μ M for native T-currents[1]. 1-Octanol is a highly attractive biofuel with diesel-like properties[2].
Targets(IC ₅₀)	T-type calcium channel: 4 μ M Human Endogenous Metabolite: None
In vitro	1-octanol inhibits native T-currents at subanesthetic concentrations with an IC ₅₀ of approximately 4 μ M. In contrast, 1-octanol is up to 30-fold less potent in inhibiting recombinant CaV3.3 T-channels heterologously expressed in human embryonic kidney cells[1].

Solubility Information

Solubility	DMSO: 250 mg/mL (1919.68 mM) (< 1 mg/ml refers to the product slightly soluble or insoluble)
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Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	7.679 mL	38.394 mL	76.787 mL
5 mM	1.536 mL	7.679 mL	15.357 mL
10 mM	0.768 mL	3.839 mL	7.679 mL
50 mM	0.154 mL	0.768 mL	1.536 mL

Please select the appropriate solvent to prepare the stock solution, according to the solubility of the product in different solvents. The storage conditions and period of the stock solution: - 80 °C for 6 months; - 20 °C for 1 month. Please use it as soon as possible.

Reference

- Joksovic PM, et al. Mechanisms of inhibition of T-type calcium current in the reticular thalamic neurons by 1-octanol: implication of the protein kinase C pathway. Mol Pharmacol. 2010 Jan;77(1):87-94.
- Akhtar MK, et al. Microbial production of 1-octanol: A naturally excreted biofuel with diesel-like properties. Metab Eng Commun. 2014 Nov 13;2:1-5.

Inhibitors · Natural Compounds · Compound Libraries

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