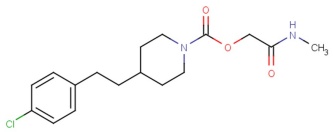
Data Sheet (Cat.No.T12826)

TargetMol
A DRUG SCREENING EXPERT

SA57

Chemical Properties



CAS No.:	1346169-63-8
Formula:	C17H23ClN2O3
Molecular Weight:	338.83
Appearance:	N/A
Storage:	0-4℃ for short term (days to weeks), or -20℃ for long term (months).

Biological Description

Description	SA57 is a potent, selective inhibitor of FAAH(IC50s of 3.2 nM and 1.9 nM for mouse and human FAAH).
Targets(IC_{50})	Mouse FAAH: 3.2 nM Human FAAH: 1.9 nM Mouse MAGL: 410 nM Human MAGL: 1.4 μM Mouse ABHD6: 850 nM
In vitro	SA57 exhibits clear time-dependent inhibition of FAAH and MAGL, suggesting a covalent mechanism of inactivation, presumably through carbamylation of the active site serine nucleophiles of these enzymes[1].
In vivo	In vivo SA57 (0.01-12.5 mg/kg; intraperitoneal injection; for 2 hours; C57Bl/6 mice) treatment shows distinct dose-responsive activity against brain serine hydrolases (FAAH, MAGL and ABHD6)[1].

Solubility Information

Solubility	< 1 mg/ml refers to the product slightly soluble or insoluble

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	2.951 mL	14.757 mL	29.513 mL
5 mM	0.59 mL	2.951 mL	5.903 mL
10 mM	0.295 mL	1.476 mL	2.951 mL
50 mM	0.059 mL	0.295 mL	0.59 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 ℃ for 6 months; - 20 ℃ for 1 month. Please use it as soon as possible.

Reference

1. Niphakis MJ, et al. O-hydroxyacetamide carbamates as a highly potent and selective class of endocannabinoid hydrolase inhibitors. ACS Chem Neurosci. 2012 May 16;3(5):418-26.
2. Owens RA, et al. Discriminative Stimulus Properties of the Endocannabinoid Catabolic Enzyme Inhibitor SA-57 in Mice. J Pharmacol Exp Ther. 2016 Aug;358(2):306-14.

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