Data Sheet (Cat.No.T10937)

TargetMol

D-JNKI-1

Chemical Properties

CAS No. : 1445179-97-4

Formula: C164H286N66O40

Molecular Weight: 3822.44

DQSRPVQPFLNLTTPRKPRPPRRRQRRKKRG-NH_2

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	D-JNKI-1 (AM-111) is a highly effective, cell-permeable peptide inhibitor.
Targets(IC50)	JNK
In vitro	D-JNKI-1 (AM-111; 1μM-1mM) treatment can prevent neomycin-induced apoptosis and loss of hair cells.
In vivo	D-JNKI-1 (AM-111; 10μM) effectively prevents hair cell death and permanent hearing loss induced by neomycin ototoxicity in guinea pig cochlea mp. Local delivery of D-JNKI-1 also mitigates permanent hearing loss due to hearing trauma in a dose-dependent manner. D-JNKI-1 (0.3 mg/kg, intraperitoneal injection) reverses pathological events in rat brain mitochondria, significantly reducing cytochrome c release and PARP cleavage. Additionally, D-JNKI-1 (1 μg/kg, s.c.) substantially decreases the disease activity index and reduces CD4+ and CD8+ cell expression in mice.

Solubility Information

Solubility	H2O: 50 mg/mL (13.08 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	0.2616 mL	1.3081 mL	2.6161 mL
5 mM	0.0523 mL	0.2616 mL	0.5232 mL
10 mM	0.0262 mL	0.1308 mL	0.2616 mL
50 mM	0.0052 mL	0.0262 mL	0.0523 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

Wang J, et al. A peptide inhibitor of c-Jun N-terminal kinase protects against both aminoglycoside and acoustic trauma-induced auditory hair cell death and hearing loss. J Neurosci. 2003 Sep 17;23(24):8596-607.
Kersting S, et al. The impact of JNK inhibitor D-JNKI-1 in a murine model of chronic colitis induced by dextran sulfate sodium. J Inflamm Res. 2013 May 3;6:71-81.
Zhao Y, et al. The JNK inhibitor D-JNKI-1 blocks apoptotic JNK signaling in brain mitochondria. Mol Cell Neurosci. 2012 Mar;49(3):300-10.
Wang C, et al. Wu-tou decoction attenuates neuropathic pain via suppressing spinal astrocytic IL-1R1/TRAF6/JNK signaling. Oncotarget. 2017 Oct 6;8(54):92864-92879.