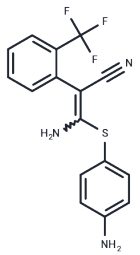
Data Sheet (Cat.No.T2708)

TargetMol

SL327

Chemical Properties



CAS No. : 305350-87-2

Formula: C16H12F3N3S

Molecular Weight: 335.35

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	SL327 is a selective inhibitor for MEK1/2 with IC50 of 0.18 μM/0.22 μM; able to transport through the blood-brain barrier.
Targets(IC50)	MEK,DNA/RNA Synthesis
In vitro	Administration of 30 mg/kg of SL327 significantly impairs spatial learning and memory in mice. At a higher dose of 50 mg/kg, SL327 can cross the blood-brain barrier and inhibit conditioned fear by suppressing the phosphorylation of MAPK/ERK.
In vivo	SL327 does not inhibit a variety of other kinases, including PKA, PKC, or CamKII.
Kinase Assay	The ligand binding competition assays are performed. Cytosolic cell extracts from Hepa-1 cells are generated by the resuspension of the cell pellets in HEDG buffer [25 mM Hepes, 1 mM EDTA, 1 mM dithiothreitol, and 10% (v/v) glycerol, pH 7.5] containing 0.4 mM leupeptin, 4 mg/mL aprotinin, and 0.3 mM phenylmethylsulfonyl fluoride, homogenization, and centrifugation at 100,000 g for 45 min. Aliquots of the supernatant (120 μg) are incubated at room temperature for 2 h with the indicated concentrations of Pifithrin-α in the presence of 3 nM [3H]TCDD in HEDG buffer. After incubation on ice with hydroxyapatite for 30 min, HEDG buffer with 0.5% Tween 80 is added. The samples are centrifuged, washed twice, resuspended in 0.2 mL of scintillation fluid, and subjected to scintillation counting. Nonspecific binding is determined using a 150-fold molar excess of TCDF and subtracted from the total binding to obtain the specific binding. The specific binding is reported relative to [3H]TCDD alone[2].

Solubility Information

Solubility	DMSO: 50 mg/mL (149.1 mM),Sonication is recommended. Ethanol: 16.8 mg/mL (50.1 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)
In vivo Formulation	10% DMSO+40% PEG300+5% Tween 80+45% Saline: 2 mg/mL (5.96 mM),Sonication is recommended. *Please add the solvents sequentially, clarifying the solution as much as possible before adding the next one. Dissolve by heating and/or sonication if necessary. Working solution is recommended to be prepared and used immediately. The formulation provided above is for reference purposes only. In vivo formulations may vary and should be modified based on specific experimental conditions.*

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	2.982 mL	14.9098 mL	29.8196 mL
5 mM	0.5964 mL	2.982 mL	5.9639 mL
10 mM	0.2982 mL	1.491 mL	2.982 mL
50 mM	0.0596 mL	0.2982 mL	0.5964 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

Scherle PA, wt al. J Biol Chem. 2000, 275(47), 37086-37092.
Zhu H, Liu X, Wang X, et al.Gβγ subunit inhibitor decreases DOM-induced head twitch response via the PLCβ/IP3/Ca2+/ERK and cAMP signaling pathways.European Journal of Pharmacology.2023: 176038.
Atkins CM, et al. Nat Neurosci, 1998, 1(7), 602-609.
Selcher JC, et al. Learn Mem, 1999, 6(5), 478-490.
Valjent E, J Neurosci, 2000, 20(23), 8701-8709.