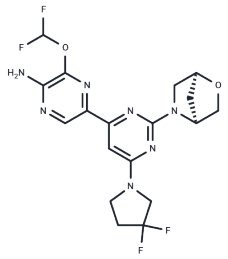
Data Sheet (Cat.No.T73457)

TargetMol

DN-1289

Chemical Properties



CAS No. :

Formula: C18H19F4N7O2

Molecular Weight: 441.38

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	DN-1289 is an orally available, blood-brain barrier-crossing, selective and potent inhibitor with an IC50 value of 17 nM for di-leucine zipper kinase (DLK) and 40 nM for leucine zipper-bearing kinase (LZK).DN-1289 significantly inhibited optic nerve crush (ONC)-induced p-c-Jun in a mouse model.
Targets(IC50)	DNA Alkylation,JNK
In vitro	DN-1289 (Compound 14) (0.1, 0.3, and 1 μM; 0-20 h) can block the neurite degeneration induced by nerve growth factor (NGF) withdrawal in dorsal root ganglion (DRG) neurons [1]. DN-1289 (0.1, 0.3, and 1 μM; 0-20 h) inhibits the activation of caspases, apoptotic protease, in NGF withdrawal-induced apoptosis in DRG neurons[1].
In vivo	DN-1289 (Compound 14) demonstrates good tolerance in a mouse model at doses of 100 mg/kg and 150 mg/kg administered via intraperitoneal injection once daily for 10-15 days[1]. DN-1289 (150 mg/kg; oral administration; twice daily for 10 days) inhibits c-Jun phosphorylation in the acute optic nerve crush (ONC) injury model[1].

Solubility Information

Solubility	DMSO: 55 mg/mL (124.61 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 (4.53 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	2.2656 mL	11.3281 mL	22.6562 mL
5 mM	0.4531 mL	2.2656 mL	4.5312 mL
10 mM	0.2266 mL	1.1328 mL	2.2656 mL
50 mM	0.0453 mL	0.2266 mL	0.4531 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

Craig RA 2nd, et al. Discovery of Potent and Selective Dual Leucine Zipper Kinase/Leucine Zipper-Bearing Kinase Inhibitors with Neuroprotective Properties in In Vitro and In Vivo Models of Amyotrophic Lateral Sclerosis. J Med Chem. 2022 Dec 22;65(24):16290-16312.