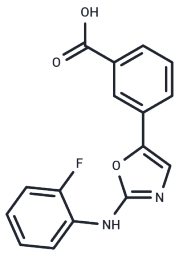
Data Sheet (Cat.No.T39924)

TargetMol

NF-κB activator 2

Chemical Properties



CAS No. : 2375281-44-8

Formula: C16H11FN2O3

Molecular Weight: 298.27

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	NF-κB Activator 2 is a potent, orally active compound that efficiently activates NF-κB with an EC50 value of 1.58 μM. By enhancing NF-κB expression and activation, it induces SOD 2 synthesis, rendering it useful for amyotrophic lateral sclerosis (ALS) research [1].
Targets(IC50)	NF-κB
In vitro	NF-κB activator 2 (Compound 61) (1 μM, 6 hr) induces SOD 2 mRNA expression in SH-SY5Y neuroblastoma cells [1]. SOD2 is a highly inducible SOD that performs in concurrence with SOD1 to detoxify ROS. Induction of SOD2 can be obtained through the activation of NF-Bs.
In vivo	NF-κB activator 2, when administered intravenously (i.v.) at a dose of 1 mg/kg, demonstrates an appropriate half-life of 0.96 hours in mice [1]. Similarly, at an oral (p.o.) dosage of 5 mg/kg, it shows a comparable half-life of 2.86 hours, an oral bioavailability of 15.6%, and a maximum concentration (C max) of 92 ng/mL [1].

Solubility Information

Solubility	DMSO: 250 mg/mL (838.17 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: 5 mg/mL (16.76 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	3.3527 mL	16.7633 mL	33.5267 mL
5 mM	0.6705 mL	3.3527 mL	6.7053 mL
10 mM	0.3353 mL	1.6763 mL	3.3527 mL
50 mM	0.0671 mL	0.3353 mL	0.6705 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

Mathew B, et, al. Structure-activity relationship (SAR) studies of N-(3-methylpyridin-2-yl)-4-(pyridin-2-yl)thiazol-2-amine (SRI-22819) as NF-B activators for the treatment of ALS. Eur J Med Chem. 2020 Oct 22;112952.

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