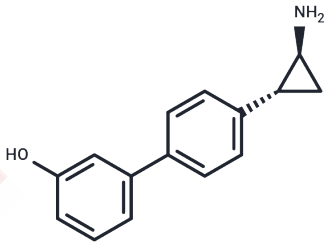
Data Sheet (Cat.No.T6073)

TargetMol

OG-L002

Chemical Properties



CAS No. : 1357302-64-7

Formula: C15H15NO

Molecular Weight: 225.29

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	OG-L002 is an effective and selective LSD1 inhibitor (IC50: 20 nM), showing 69- and 36-fold selectivity over MAO-A and MAO-B, respectively.
Targets(IC50)	Histone Demethylase,HSV,Monoamine Oxidase
In vitro	OG-L002 potently inhibits HSV IE gene expression in both HeLa and HFF cells with IC50 of ~10 μM and ~3 μM , respectively. OG-L002 treatment (50 μM) results in the reduced production of progeny virus with no significant toxicity in HeLa or HFF cells. OG-L002 (50 μM) increases the levels of repressive chromatin on viral IE gene promoters. In addition, OG-L002 also represses the expression of hCMV IE genes and adenovirus E1A gene. [1]
In vivo	OG-L002 (6 to 40 mg/kg) represses HSV primary infection in a dose-dependent manner in a mouse model. Moreover, OG-L002 also represses HSV reactivation from latency in a mouse ganglion explant model. [1]
Kinase Assay	LSD1 demethylation assay: Human recombinant LSD1 protein is incubated with dimethylated H3K4 peptide as the substrate in the presence of various concentrations of lead compound inhibitors (0 to 75 μM) or control tranylcypromine. The demethylase activity is measured by the release of Water2 produced during the catalytic process, using the Amplex red peroxide/peroxidase-coupled assay kit. Each reaction is done in triplicate. The maximum LSD1 demethylase activity is obtained in the absence of inhibitor and corrected for background fluorescence. The Ki (IC50) of OG-L002 is calculated as half-maximal activity.
Cell Research	HeLa or HFF cells are treated with the indicated concentrations of saponin (positive control) or compound OG-L002 for 12 hours. Cytotoxicity is determined using conditions recommended by the manufacturer and expressed as ratios to the cytotoxicity of the DMSO control.(Only for Reference)

Solubility Information

Solubility	H2O: < 1 mg/mL (insoluble or slightly soluble), Ethanol: 16 mg/mL (71.02 mM),Sonication is recommended. DMSO: 55 mg/mL (244.13 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: 1 mg/mL (4.44 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	4.4387 mL	22.1936 mL	44.3872 mL
5 mM	0.8877 mL	4.4387 mL	8.8774 mL
10 mM	0.4439 mL	2.2194 mL	4.4387 mL
50 mM	0.0888 mL	0.4439 mL	0.8877 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

MBio. 2013, 4(1), e00558-12.