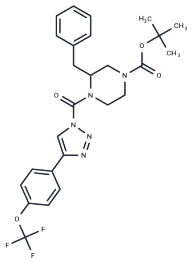
Data Sheet (Cat.No.T11070L)

TargetMol

DO34

Chemical Properties



CAS No. : 1848233-58-8

Formula: C26H28F3N5O4

Molecular Weight: 531.53

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	DO34 is a selective and potent diacylglycerol lipase (DAGL-α/β) inhibitor that impairs fear extinction in mice, and can be used to study lipopolysaccharide inflammatory pain.
Targets(IC50)	Others
In vitro	DO34 is a potent, selective and centrally active DAGL inhibitor, the efficiency of DAGLα in converting SAG to 2-AG was determined by a real-time fluorescence-based natural substrate assay using membrane lysates from HEK293T cells expressing recombinant human DAGLα, DAGLα IC50 = 6 nM.DO34 is also a potent DAGLβ inhibitor, DAGLβ DO34 is also a potent DAGLβ inhibitor, DAGLβ IC50 = 3-8 nM. [1]
In vivo	DO34 reduces 2-AG levels in the brain in a dose- and time-dependent manner and prevents fasting-induced regurgitation in mice, which is typical of cannabinoid CB1 receptor-mediated behavior, and DO34 blocks tonic CB1 activation.DO34 blocks basal PF-EPSCs in AM251-increased MAGL-TKO mice. [2]

Solubility Information

Solubility	DMSO: 80 mg/mL (150.51 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: 10 mg/mL (18.81 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	1.8814 mL	9.4068 mL	18.8136 mL
5 mM	0.3763 mL	1.8814 mL	3.7627 mL
10 mM	0.1881 mL	0.9407 mL	1.8814 mL
50 mM	0.0376 mL	0.1881 mL	0.3763 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

Ogasawara D, Deng H, Viader A, Baggelaar MP, Breman A, den Dulk H, van den Nieuwendijk AM, et al. Rapid and profound rewiring of brain lipid signaling networks by acute diacylglycerol lipase inhibition. Proc Natl Acad Sci U S A. 2016 Jan 5;113(1):26-33.
Liu X, et al. Coordinated regulation of endocannabinoid-mediated retrograde synaptic suppression in the cerebellum by neuronal and astrocytic monoacylglycerol lipase. Sci Rep. 2016 Oct 24;6:35829.
Deng H, et al. Triazole Ureas Act as Diacylglycerol Lipase Inhibitors and Prevent Fasting-Induced Refeeding. J Med Chem. 2017 Jan 12;60(1):428-440.

Tel:781-999-4286 E_mail:info@targetmol.com Address:34 Washington Street,Wellesley Hills,MA 02481