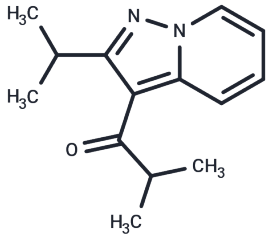
Data Sheet (Cat.No.T2137)

TargetMol

Ibudilast

Chemical Properties



CAS No. : 50847-11-5

Formula: C14H18N2O

Molecular Weight: 230.31

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	Ibudilast (MN-166)(KC-404;AV-411;MN-166) is a relatively nonselective phosphodiesterase inhibitor. It is approved for use as an anti-inflammatory in Japan.
Targets(IC50)	PDE

Solubility Information

Solubility	DMSO: 60 mg/mL (260.52 mM),Sonication is recommended. Ethanol: 23 mg/mL (99.87 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 (8.68 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	4.342 mL	21.7099 mL	43.4197 mL
5 mM	0.8684 mL	4.342 mL	8.6839 mL
10 mM	0.4342 mL	2.171 mL	4.342 mL
50 mM	0.0868 mL	0.4342 mL	0.8684 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

Yamazaki T, et al. Eur J Pharmacol. 2010 Oct 29.
Zhou D, Yang S, Yan H, et al. SC75741, a novel c-Abl inhibitor, promotes the clearance of TDP25 aggregates via ATG5-dependent autophagy pathway. Frontiers in Pharmacology. 2021: 2891.
Chen Y, Wang H, Ying Z, et al. Ibudilast enhances the clearance of SOD1 and TDP-43 aggregates through TFEB-mediated autophagy and lysosomal biogenesis: The new molecular mechanism of ibudilast and its implication for neuroprotective therapy. Biochemical and Biophysical Research Communications. 2020
Chen Y, Wang H, Ying Z, et al. Ibudilast enhances the clearance of SOD1 and TDP-43 aggregates through TFEB-mediated autophagy and lysosomal biogenesis: The new molecular mechanism of ibudilast and its implication for neuroprotective therapy[J]. Biochemical and Biophysical Research Communications. 2020.