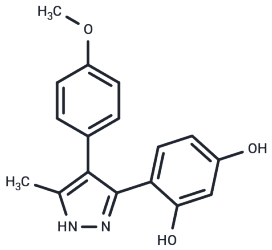
Data Sheet (Cat.No.T15944)

M77976

Chemical Properties



CAS No. : 394237-61-7

Formula: C17H16N2O3

Molecular Weight: 296.32

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	M77976 is a selective ATP-competitive inhibitor of pyruvate dehydrogenase kinase 4 (PDK4) with an inhibitory effect on PDK4, having an IC50 value of 648 μM. It is used for research related to obesity and diabetes.
Targets(IC50)	PDK,Dehydrogenase
In vitro	Binding to the ATP-binding pocket of PDK4, M77976 induces local conformational changes, resulting in complete disordering of the ATP lid[1]. M77976 engages in hydrophobic interactions with the side chains of Asn258, Ala262, Val298, Leu306, and Thr358 of PDK4[1].

Solubility Information

Solubility	DMSO: 100 mg/mL (337.47 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: 4 mg/mL (13.5 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	3.3747 mL	16.8737 mL	33.7473 mL
5 mM	0.6749 mL	3.3747 mL	6.7495 mL
10 mM	0.3375 mL	1.6874 mL	3.3747 mL
50 mM	0.0675 mL	0.3375 mL	0.6749 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

Kukimoto-Niino M, et al. Inhibitor-bound structures of human pyruvate dehydrogenase kinase 4. Acta Crystallogr D Biol Crystallogr. 2011 Sep;67(Pt 9):763-73.