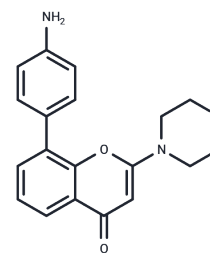


PI-828

Chemical Properties

CAS No. : 942289-87-4
 Formula: C₁₉H₁₈N₂O₃
 Molecular Weight: 322.36
 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	PI-828 is a phosphatidylinositol 3-kinase (PI3K) inhibitor, which is widely used to study the physiological function of PI3K and also promotes stem cell differentiation into mesoderm.
Targets(IC50)	Casein Kinase,PI3K
In vitro	PI-828 (0.78-3.12 μ M; 48 hours) reduces caspase 3 activation. However, higher concentrations of PI-828 (6.25-12.5 μ M) alone causes apoptosis[2].The sensitivity to PI-828 is a key feature of PI3K-C2 β that shows a different sensitivity to this inhibitor compared to class I PI3Ks. Of note, 1 μ M PI-828 has no effect on the activity of PI3K-C2 β , while it significantly inhibits class I PI3Ks. In particular, a concentration of 10 μ M PI-828 completely blocks class I PI3Ks, whereas it has only a partial inhibitory effect on PI3K-C2 β [4]

Solubility Information

Solubility	DMSO: 11.2 mg/mL (34.74 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 (3.1 mM),Sonication is recommended. <i>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.</i>

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	3.1021 mL	15.5106 mL	31.0212 mL
5 mM	0.6204 mL	3.1021 mL	6.2042 mL
10 mM	0.3102 mL	1.5511 mL	3.1021 mL
50 mM	0.062 mL	0.3102 mL	0.6204 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

Gharbi SI, et al. Exploring the specificity of the PI3K family inhibitor LY294002. *Biochem J.* 2007 May 15;404(1):15-21.

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McLean AB, et al. Activin a efficiently specifies definitive endoderm from human embryonic stem cells only when phosphatidylinositol 3-kinase signaling is suppressed. *Stem Cells.* 2007 Jan;25(1):29-38.

Falasca M, Maffucci T. Emerging roles of phosphatidylinositol 3-monophosphate as a dynamic lipid second messenger. *Arch Physiol Biochem.* 2006 Oct-Dec;112(4-5):274-84.

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