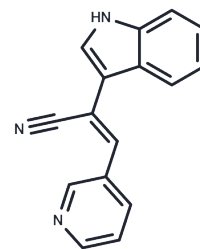


Paprottrain

Chemical Properties

CAS No. :	57046-73-8
Formula:	C ₁₆ H ₁₁ N ₃
Molecular Weight:	245.28
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	Paprottrain ((alphaZ)-alpha-(3-Pyridinylmethylene)-1H-indole-3-acetonitrile) inhibits the ATPase activity of MKLP-2 with an IC ₅₀ of 1.35 μM and a K _i of 3.36 μM.
Targets(IC ₅₀)	Kinesin
In vitro	Paprottrain-treated porcine oocytes suffer failure of nuclear maturation. The number of oocytes arrested at early MI stage increase in a dose-dependent manner after KIF20A activity inhibition, while the percentage of oocytes that reach ATI and MII stages decrease after treatment[3].

Solubility Information

Solubility	DMSO: 125 mg/mL (509.62 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 (16.31 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	4.077 mL	20.3849 mL	40.7697 mL
5 mM	0.8154 mL	4.077 mL	8.1539 mL
10 mM	0.4077 mL	2.0385 mL	4.077 mL
50 mM	0.0815 mL	0.4077 mL	0.8154 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

Labrière C, et al. Further investigation of Paprotrain: Towards the conception of selective and multi-targeted CNS kinase inhibitors. *Eur J Med Chem.* 2016 Nov 29;124:920-934.

Liu J, et al. MKlp2 inhibitor paprotrain affects polar body extrusion during mouse oocyte maturation. *Reprod Biol Endocrinol.* 2013 Dec 21;11:117.

Zhang Y, et al. KIF20A regulates porcine oocyte maturation and early embryo development.

Tcherniuk S, et al. Relocation of AuroraB and survivin from centromeres to the central spindle impaired by a kinesin-specific MKLP-2 inhibitor. *Angew Chem Int Ed Engl.* 2010 Oct 25;49(44):8228-31.

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