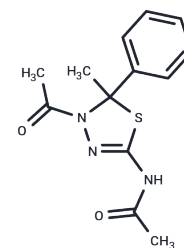


## K858 (Racemic)

## Chemical Properties

CAS No. :	72926-24-0
Formula:	C <sub>13</sub> H <sub>15</sub> N <sub>3</sub> O <sub>2</sub> S
Molecular Weight:	277.34
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	K858 Racemic (K858) is a selective mitotic kinesin Eg5 inhibitor which acts in an ATP-noncompetitive manner.
Targets(IC50)	Apoptosis, Kinesin
In vitro	K858 is an ATP-uncompetitive inhibitor of Eg5 that is at least 150-fold more selective for Eg5 than other members of the kinesin superfamily. K858 induces mitotic arrest and growth inhibition through the activation of the Mad2-mediated spindle checkpoint. K858 induces mitotic cell death in Y cells but not in normal cells. K858 induces mitotic arrest, apoptosis, and cell growth inhibition and has no effect on microtubule polymerization.
In vivo	K858 exhibits antitumor activity and induces mitotic arrest in a human tumor xenograft mouse model. K858 exhibits antitumor activity and induces mitotic arrest in human xenograft tumor models. [1]

## Solubility Information

Solubility	DMSO: 27.7 mg/mL (99.88 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 (7.21 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

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	<b>1mg</b>	<b>5mg</b>	<b>10mg</b>
1 mM	3.6057 mL	18.0284 mL	36.0568 mL
5 mM	0.7211 mL	3.6057 mL	7.2114 mL
10 mM	0.3606 mL	1.8028 mL	3.6057 mL
50 mM	0.0721 mL	0.3606 mL	0.7211 mL

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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

Nakai R, et al. Y Res. 2009 May 1;69(9):3901-9.

Indorato RL, et al. Biochem Pharmacol. 2013 Nov 15;86(10):1441-51.

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