

D-64131

## Chemical Properties

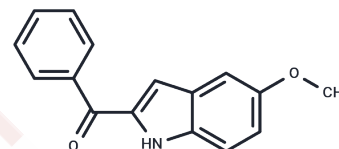
CAS No. : 74588-78-6

Formula: C<sub>16</sub>H<sub>13</sub>NO<sub>2</sub>

Molecular Weight: 251.28

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	D-64131 is a tubulin polymerization inhibitor with an IC <sub>50</sub> value of 0.53 μM.
Targets(IC <sub>50</sub> )	Microtubule Associated
In vitro	D-64131 dose-dependently inhibited the polymerization of bovine brain microtubulin and the binding of [ <sup>3</sup> H]colchicine to biotinylated αβ-microtubulin. After treatment with D-64131, many Y cells displayed abnormal microtubule structures, such as divided mitotic spindles or multiple spindle poles. Nuclear vesicles and abnormal nuclear structures typical of apoptotic cells were detected in many cells treated with D-64131.
In vivo	D-64131 dose-dependently inhibited the polymerization of bovine brain microtubulin and the binding of [ <sup>3</sup> H]colchicine to biotinylated αβ-microtubulin. After treatment with D-64131, many Y cells displayed abnormal microtubule structures, such as divided mitotic spindles or multiple spindle poles. Nuclear vesicles and abnormal nuclear structures typical of apoptotic cells were detected in many cells treated with D-64131.

## Solubility Information

Solubility	DMSO: 25.1 mg/mL (99.89 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 (7.96 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	3.9796 mL	19.8981 mL	39.7962 mL
5 mM	0.7959 mL	3.9796 mL	7.9592 mL
10 mM	0.398 mL	1.9898 mL	3.9796 mL
50 mM	0.0796 mL	0.398 mL	0.7959 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

Beckers T, et al. Y Res. 2002 Jun 1;62(11):3113-9.

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