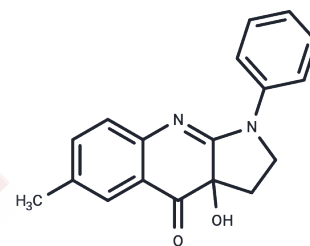


Blebbistatin

Chemical Properties

CAS No. :	674289-55-5
Formula:	C ₁₈ H ₁₆ N ₂ O ₂
Molecular Weight:	292.33
Storage:	Store at low temperature Powder: -20°C for 3 years In solvent: -80°C for 1 year <small>Actual storage temperature shall be subject to the COA.</small>



Biological Description

Description	Blebbistatin ((±)-Blebbistatin) is a non-muscle myosin II (NMII)-selective and non-muscle myosin heavy chain 9 (MYH9)-specific inhibitor that promotes directional migration of corneal endothelial cells (CECs) and accelerates wound healing, while preserving the integrity of cell junctions and barrier function.
Targets(IC50)	ATPase, Myosin
In vitro	Blebbistatin is a cell-permeable non-muscle myosin II ATPases inhibitor with an IC ₅₀ range of 2 μM.
In vivo	METHODS: Blebbistatin ((±)-Blebbistatin) (10, 20, 40 mg/kg, intraperitoneal injection, once every two days, 4 weeks) was administered to NCl-H460 model nude mice, and the changes in tumors in the mice were observed. RESULTS The inhibition rates of Blebbistatin ((±)-Blebbistatin) on xenograft tumor weight were 23.4%, 40.2%, and 83.4%, respectively. [1]

Solubility Information

Solubility	DMSO: 23 mg/mL (78.68 mM), Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)
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Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	3.4208 mL	17.104 mL	34.2079 mL
5 mM	0.6842 mL	3.4208 mL	6.8416 mL
10 mM	0.3421 mL	1.7104 mL	3.4208 mL
50 mM	0.0684 mL	0.3421 mL	0.6842 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

Chen M, et al. MYH9 is crucial for stem cell-like properties in non-small cell lung cancer by activating mTOR signaling. *Cell Death Discov.* 2021 Oct 11;7(1):282.

Ho WT, et al. Targeting non-muscle myosin II promotes corneal endothelial migration through regulating lamellipodial dynamics. *J Mol Med (Berl).* 2019 Sep;97(9):1345-1357.

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