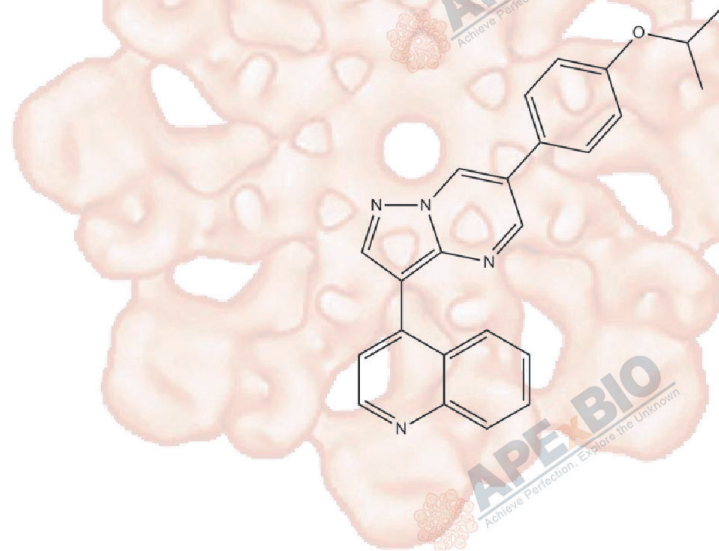


Product Data Sheet

DMH-1

Cat. No.:	B3686
CAS No.:	1206711-16-1
Formula:	C ₂₄ H ₂₀ N ₄ O
M.Wt:	380.44
Synonyms:	
Target:	TGF-β / Smad Signaling
Pathway:	TGF-βR1(ALK5)
Storage:	Store at -20°C



Solvent & Solubility

insoluble in H₂O; insoluble in EtOH; ≥9.51 mg/mL in DMSO

In Vitro	Preparing Stock Solutions	Mass			
		Solvent Concentration	1mg	5mg	10mg
		1 mM	2.6285 mL	13.1427 mL	26.2854 mL
		5 mM	0.5257 mL	2.6285 mL	5.2571 mL
		10 mM	0.2629 mL	1.3143 mL	2.6285 mL

Please refer to the solubility information to select the appropriate solvent.

Biological Activity

Shortsummary	Selective BMP ALK2 receptor			
IC ₅₀ & Target	100 nM (BMP signaling), 107.9 nM (ALK2)			
In Vitro	Cell Viability Assay			
	<table border="0"> <tr> <td>Cell Line:</td> <td>A549 and H460 cells</td> </tr> <tr> <td>Preparation method:</td> <td>The solubility of this compound in DMSO is >10 mM. General tips for obtaining a higher concentration: Please warm the tube at 37°C for 10 minutes and/or shake it in the ultrasonic bath for a while. Stock solution can be stored below -20°C for several months.</td> </tr> </table>	Cell Line:	A549 and H460 cells	Preparation method:
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	Reacting conditions:	Cell scratch-wound Assay: 24 h DMH1 at 1 μ M and 3 μ M concentrations. Cell Proliferation Assay: incubated for 48 hours and 96 hours
	Applications:	DMH1 blocked BMP signaling in NSCLC cells and decreased NSCLC cell migration and invasion, DMH1 reduces NSCLC cell proliferation and induces cell death
In Vivo	Animal experiment	
	Animal models:	Xenograft model
	Dosage form:	5 mg/kg DMH1 every other day.
	Applications:	The rate for doubling tumor size in DMH1-treated mice was about one day longer than the controls (5.6 versus 4.7 days in the DMH1 treated and control mice, respectively). MH1 treatment resulted in a statistically significant reduction in tumor volumes by about 50% compared to the vehicle control group. In a word , DMH1 attenuated xenograft lung tumor growth in mice
	Preparation method:	dissolved in 12.5% 2-hydroxypropyl-b-cyclodextrin
	Other notes:	Please test the solubility of all compounds indoor, and the actual solubility may slightly differ with the theoretical value. This is caused by an experimental system error and it is normal.

Product Citations

See more customer validations on www.apexbt.com.

References

[1]. Jijun Hao, Rachel Lee, Andy Chang, et al. DMH1, a Small Molecule Inhibitor of BMP Type I Receptors, Suppresses Growth and Invasion of Lung Cancer. 2014, 9(3): e90748.

Caution

FOR RESEARCH PURPOSES ONLY.

NOT FOR HUMAN, VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

Specific storage and handling information for each product is indicated on the product datasheet. Most APExBIO products are stable under the recommended conditions. Products are sometimes shipped at a temperature that differs from the recommended storage temperature. Short-term storage of many products are stable in the short-term at temperatures that differ from that required for long-term storage. We ensure that the product is shipped under conditions that will maintain the quality of the reagents. Upon receipt of the product, follow the storage recommendations on the product data sheet.



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