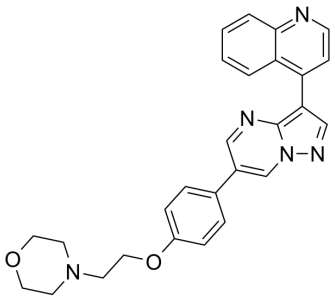
DMH2

Cat. No.:	HY-110245
CAS No.:	1206711-14-9
Molecular Formula:	$C_{27}H_{25}N_5O_2$
Molecular Weight:	451.52
Target:	Apoptosis
Pathway:	Apoptosis
Storage:	Please store the product under the recommended conditions in the Certificate of Analysis.



BIOLOGICAL ACTIVITY

Description	DMH2 is a potent BMP receptor antagonist. DMH2 downregulates the expression of Id1 and Id3 proteins, and inhibits the proliferation and induces cell death of lung cancer cell lines[1].
In Vitro	DMH2 decreases expression of Id1 and Id3 and causes growth suppression of three lung cancer cell lines with K-Ras mutation (A549, H157, H727) and three without a K-Ras mutation (H1299, H865, U1752)[1]. The combination of DMH2 and PP2 causes significantly greater reduction in Id1 promoter activity and growth inhibition than either agent alone in the A549 cells[1]. MCE has not independently confirmed the accuracy of these methods. They are for reference only.
In Vivo	DMH2 (0-2 mg/kg, IP, twice daily, for 2 days prior to PH (partial hepatectomy) and for 2 days after PH) increases hepatocyte proliferation from 13.7% to 26.9% at 2 mg/kg[2]. MCE has not independently confirmed the accuracy of these methods. They are for reference only.

Animal Model:	C57BL/6 mice (7-8 weeks, male)[2]
Dosage:	0.5, 1, 2 mg/kg
Administration:	IP, twice daily, for 2 days prior to PH and for 2 days after PH (partial hepatectomy)
Result:	Increased hepatocyte proliferation from 13.7% to 26.9% at 2 mg/kg.

REFERENCES

[1]. Langenfeld J E, Langenfeld E. Src inhibition enhances BMP receptor antagonists downregulation of Id1 and growth suppression of lung cancer cells with a K-Ras mutation. 2013:5263.

[2]. Tsugawa D, Oya Y, Masuzaki R, et al. Specific activin receptor-like kinase 3 inhibitors enhance liver regeneration. J Pharmacol Exp Ther. 2014;351(3):549-558.

Caution: Product has not been fully validated for medical applications. For research use only.

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