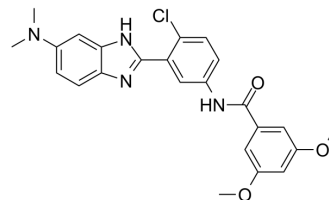


HhAntag

Cat. No.:	HY-15412		
CAS No.:	496794-70-8		
Molecular Formula:	C ₂₄ H ₂₃ ClN ₄ O ₃		
Molecular Weight:	450.92		
Target:	Smo		
Pathway:	Stem Cell/Wnt		
Storage:	Powder	-20°C	3 years
		4°C	2 years
	In solvent	-80°C	2 years
		-20°C	1 year



SOLVENT & SOLUBILITY

In Vitro

DMSO : ≥ 100 mg/mL (221.77 mM)
 * "≥" means soluble, but saturation unknown.

Preparing Stock Solutions	Solvent Concentration	Mass		
		1 mg	5 mg	10 mg
	1 mM	2.2177 mL	11.0884 mL	22.1769 mL
	5 mM	0.4435 mL	2.2177 mL	4.4354 mL
	10 mM	0.2218 mL	1.1088 mL	2.2177 mL

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

In Vivo

- Add each solvent one by one: 10% DMSO >> 40% PEG300 >> 5% Tween-80 >> 45% saline
 Solubility: ≥ 3 mg/mL (6.65 mM); Clear solution
- Add each solvent one by one: 10% DMSO >> 90% corn oil
 Solubility: ≥ 3 mg/mL (6.65 mM); Clear solution

BIOLOGICAL ACTIVITY

Description

HhAntag is a specific, potent and orally active small molecule SMO antagonist of the Hh pathway^[1].

In Vitro

HhAntag (2-30 μM; 72 hours) demonstrates to be 10-times more potent than the natural product SMO antagonist, cyclopamine, at inhibiting Hh pathway activity and it inhibits Hh signalling pathway sensitivitive cells with IC₅₀ values ranging from 2 μM to >30 μM^[1].
 HhAntag inhibits AsPC-1, BXPc-3, CFPAC, HPAC, HPAF-II, KP4, Panc 03.27, PA-TU-8902, PSN-1, SU.86.86 cells with IC₅₀ values of 30 μM, 5.4 μM, 5.8 μM, 2.7 μM, 6.2 μM, 10.3 μM, 2.5 μM, 2.9 μM, 5.8 μM and 2.7 μM, respectively^[1].
 HhAntag (100 nM) is needed to completely inhibit Hh signalling in a Hh-responsive human mesenchymal cell line (HEPM) expressing a GLI luciferase reporter construct (HEPM-rep), the IC₅₀ of 5 nM 400-times lower than that required to inhibit cell

	<p>growth by 50% in the most sensitive cancer cell line (1.9 μM)^[1]. MCE has not independently confirmed the accuracy of these methods. They are for reference only.</p>	
In Vivo	<p>HhAntag (oral administration; 75 mg/kg or 100 mg/kg; twice daily; 25 days) results in significant growth delay in HT55 and HT-29 colorectal cell line xenografts models, with average tumour growth inhibitions of 29% and 48%, respectively. Whereas HhAntag had no effect on the growth of DLD-1 xenografts^[1]. MCE has not independently confirmed the accuracy of these methods. They are for reference only.</p>	
	Animal Model:	Primary human xenografts in female CD1 nu/nu mice of 6–8 weeks (DLD-1, HT55 and HT-29 cells) ^[1]
	Dosage:	75 mg/kg or 100 mg/kg
	Administration:	Oral administration; twice daily; 25 days
	Result:	Resulted in growth delay of HT55 and HT-29 xenografts, but had no effects on DLD-1 xenografts.

REFERENCES

[1]. Neeraj Mahindroo, et al. Amide conjugates of ketoprofen and indole as inhibitors of Gli1-mediated transcription in the Hedgehog pathway. *Bioorg Med Chem*. 2010 Jul 1;18(13):4801-11.

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

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