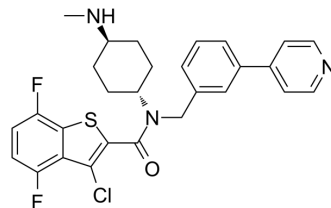


Hh-Ag1.5

Cat. No.:	HY-124899		
CAS No.:	612542-14-0		
Molecular Formula:	C ₂₈ H ₂₆ ClF ₂ N ₃ OS		
Molecular Weight:	526.04		
Target:	Hedgehog		
Pathway:	Stem Cell/Wnt		
Storage:	Powder	-20°C	3 years
		4°C	2 years
	In solvent	-80°C	6 months
		-20°C	1 month



SOLVENT & SOLUBILITY

In Vitro	DMSO : 50 mg/mL (95.05 mM; Need ultrasonic)					
	Preparing Stock Solutions	Solvent	Mass	1 mg	5 mg	10 mg
		Concentration				
		1 mM		1.9010 mL	9.5050 mL	19.0100 mL
5 mM			0.3802 mL	1.9010 mL	3.8020 mL	
		10 mM		0.1901 mL	0.9505 mL	1.9010 mL
Please refer to the solubility information to select the appropriate solvent.						
In Vivo	<ol style="list-style-type: none"> Add each solvent one by one: 10% DMSO >> 40% PEG300 >> 5% Tween-80 >> 45% saline Solubility: ≥ 2.5 mg/mL (4.75 mM); Clear solution Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline) Solubility: ≥ 2.5 mg/mL (4.75 mM); Clear solution Add each solvent one by one: 10% DMSO >> 90% corn oil Solubility: ≥ 2.5 mg/mL (4.75 mM); Clear solution 					

BIOLOGICAL ACTIVITY

Description	Hh-Ag1.5 (SAg1.5) is a potent Hedgehog (Hh) agonist with an EC ₅₀ of 1 nM ^[1] . Hh-Ag1.5 mediated reprogramming breaks the quiescence of noninjured liver stem cells for rescuing liver failure ^[2] .
IC₅₀ & Target	EC50: 1 nM (Hedgehog) ^[1]
In Vitro	HhAg1.5 (5 μM; for 3 weeks) facilitates dramatic expansion of quiescent CD133 ⁺ CD45 ⁻ liver stem cells (Hh3A cells) enriched from non-injured liver in vitro ^[2] .

Hh-Ag1.5 competely binds to the Smo-containing membranes with the K_i value of 0.52 nM^[3].

The Smo agonist SAG-1.5 displays nanomolar-range potency stimulation of Gli-responsive reporter activity, with an EC_{50} of 7 nM^[4].

MCE has not independently confirmed the accuracy of these methods. They are for reference only.

CUSTOMER VALIDATION

- Oncotargets Ther. 2020 Nov 19;13:11957-11973.

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REFERENCES

[1]. Randall W King. Roughing Up Smoothened: Chemical Modulators of Hedgehog Signaling. J Biol. 2002 Nov 6;1(2):8.

[2]. Abhisek Mitra, et al. A Small Molecule Hedgehog Agonist HhAg1.5 Mediated Reprogramming Breaks the Quiescence of Noninjured Liver Stem Cells for Rescuing Liver Failure. Transl Res. 2019 Mar;205:44-50.

[3]. Maria Frank-Kamenetsky, et al. Small-molecule Modulators of Hedgehog Signaling: Identification and Characterization of Smoothened Agonists and Antagonists. J Biol. 2002 Nov 6;1(2):10.

[4]. Cynthia M Rominger, et al. Evidence for Allosteric Interactions of Antagonist Binding to the Smoothened Receptor. J Pharmacol Exp Ther. 2009 Jun;329(3):995-1005.

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

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