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Lieferung & Zahlungsart

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Zuschläge

- Mindermengenzuschlag
- Trockeneiszuschlag
- Gefahrgutzuschlag
- Expressversand

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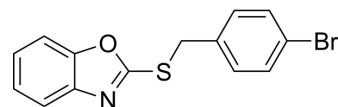
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BMP signaling agonist sb4

Cat. No.:	HY-124697
CAS No.:	100874-08-6
Molecular Formula:	C ₁₄ H ₁₀ BrNOS
Molecular Weight:	320.2
Target:	TGF-β Receptor
Pathway:	TGF-beta/Smad
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 (312.30 mM; Need ultrasonic)					
	Preparing Stock Solutions	Solvent Concentration	Mass	1 mg	5 mg	10 mg
		1 mM		3.1230 mL	15.6152 mL	31.2305 mL
		5 mM		0.6246 mL	3.1230 mL	6.2461 mL
		10 mM		0.3123 mL	1.5615 mL	3.1230 mL
Please refer to the solubility information to select the appropriate solvent.						
In Vivo	1. Add each solvent one by one: 10% DMSO >> 40% PEG300 >> 5% Tween-80 >> 45% saline Solubility: ≥ 2.5 mg/mL (7.81 mM); Clear solution					
	2. Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline) Solubility: 2.5 mg/mL (7.81 mM); Suspended solution; Need ultrasonic					
	3. Add each solvent one by one: 10% DMSO >> 90% corn oil Solubility: ≥ 2.5 mg/mL (7.81 mM); Clear solution					

BIOLOGICAL ACTIVITY

Description	BMP signaling agonist sb4 is a potent benzoxazole bone morphogenetic protein 4 (BMP4) signaling agonist with a EC ₅₀ value of 74 nM, activates BMP signaling by stabilizing intracellular p-SMAD-1/5/9. BMP signaling agonist sb4 activates BMP4 target genes (inhibitors of DNA binding, Id1 and Id3) canonical BMP signaling ^[1] .
IC ₅₀ & Target	IC50: BMP4 signal ^[1]
In Vitro	BMP signaling agonist sb4 (0.05 μM-1 μM; 24 hours) induces? phosphorylated SMAD-1/5/9 in a dose-dependent manner in?

PRECs cells under serum-starved conditions^[1].

7BMP signaling agonist sb4 (1 μ M; 0-60 mins) enhances the efficacy of signaling at each concentration of rhBMP4 tested. This effect is most pronounced at low concentrations of rhBMP4, whereby sb4 increases BRE-luc expression 2-fold at 0.4 ng/ml of rhBMP4^[1].

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

Western Blot Analysis^[1]

Cell Line:	Primary mouse kidney epithelial cells (PRECs)
Concentration:	0.05 μ M-1 μ M
Incubation Time:	24 hours
Result:	Increased p-SMAD-1/5/9 abundance in PRECs.

Western Blot Analysis^[1]

Cell Line:	BRE-Luc cells
Concentration:	1 μ M
Incubation Time:	0min, 5 mins, 15 mins, 30 mins, 45 mins, 60 mins
Result:	Acted to stabilize p-SMAD-1/5/9 to enhance the transcriptional response.

CUSTOMER VALIDATION

- Nat Immunol. 2022 Dec 21.
- Sci Total Environ. 2022 Aug 13;850:158040.

See more customer validations on www.MedChemExpress.com

REFERENCES

[1]. Bradford STJ, et al. High-throughput screens for agonists of bone morphogenetic protein (BMP) signaling identify potent benzoxazole compounds. J Biol Chem. 2019 Mar 1;294(9):3125-3136.

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

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