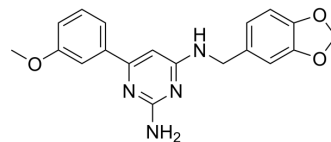


BML-284

Cat. No.:	HY-19987		
CAS No.:	853220-52-7		
Molecular Formula:	C ₁₉ H ₁₈ N ₄ O ₃		
Molecular Weight:	350.37		
Target:	Wnt		
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 (285.41 mM)
 * "≥" means soluble, but saturation unknown.

Preparing Stock Solutions	Solvent		1 mg	5 mg	10 mg
	Concentration	Mass			
	1 mM		2.8541 mL	14.2706 mL	28.5413 mL
	5 mM		0.5708 mL	2.8541 mL	5.7083 mL
	10 mM		0.2854 mL	1.4271 mL	2.8541 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: ≥ 2.08 mg/mL (5.94 mM); Clear solution
- Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline)
 Solubility: ≥ 2.08 mg/mL (5.94 mM); Clear solution
- Add each solvent one by one: 10% DMSO >> 90% corn oil
 Solubility: ≥ 2.08 mg/mL (5.94 mM); Clear solution

BIOLOGICAL ACTIVITY

Description

BML-284 is a potent and cell-permeable Wnt signaling activator. BML-284 induces TCF-dependent transcriptional activity with an EC₅₀ of 700 nM^[1].

IC₅₀ & Target

EC₅₀: 700 nM (TCF-dependent transcriptional activity)^[1]

In Vitro

BML-284 (10 μM; 24 hours) significantly increases the migration and invasion of both MNK45 and AGS cells and partially

restores the migratory and invasive abilities of cells inhibited by pizotifen (HY-B0115)^[1].

BML-284 (10 μ M; 24 hours) induces the expression of β -catenin significantly when compared with the NC group. It also partially reverses the effects induced by pizotifen on E-cadherin and N-cadherin expression in MNK45 and AGS cells compared with the pizotifen-treated group^[1].

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

Western Blot Analysis^[2]

Cell Line:	Human gastric cancer cell lines MNK45 and AGS ^[1]
Concentration:	10 μ M
Incubation Time:	24 hours
Result:	Induced β -catenin expression and reserved E-cadherin and N-cadherin expression in MNK45 and AGS cells.

In Vivo

BML-284 (10 ng) combines with Pyrimethanil (4 mg/L) could partially rescue the malformed phenotype and cardiac defects induced by Pyrimethanil in Tg (myl7:EGFP) transgenic embryos at 5.5 hpf are transferred into plates with 20 embryos^[1].

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

CUSTOMER VALIDATION

- Sci Adv. 2024 Oct 11.
- J Hazard Mater. 2023 Apr 15.
- Proc Natl Acad Sci U S A. 2021 Jan 12;118(2):e2009539118.
- Sci Total Environ. 2022 Feb 25;809:152102.
- Cell Rep. 2024 May 10;43(5):114226.

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REFERENCES

- [1]. Liu J, et al. A small-molecule agonist of the Wnt signaling pathway. *Angew Chem Int Ed Engl*. 2005 Mar 18;44(13):1987-90.
- [2]. Ying Jiang, et al. Pizotifen inhibits the proliferation and invasion of gastric cancer cells. *Exp Ther Med*. 2020 Feb;19(2):817-824.
- [3]. Yunlong Meng, et al. Exposure to pyrimethanil induces developmental toxicity and cardiotoxicity in zebrafish. *Chemosphere*. 2020 Sep;255:126889.

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

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