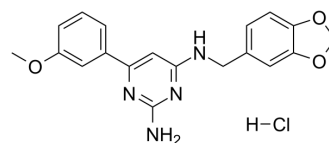


BML-284 hydrochloride

Cat. No.:	HY-19987A
CAS No.:	2095432-75-8
Molecular Formula:	C ₁₉ H ₁₉ ClN ₄ O ₃
Molecular Weight:	386.83
Target:	Wnt
Pathway:	Stem Cell/Wnt
Storage:	Please store the product under the recommended conditions in the Certificate of Analysis.



BIOLOGICAL ACTIVITY

Description	BML-284 hydrochloride is a potent and cell-permeable Wnt signaling activator. BML-284 induces TCF-dependent transcriptional activity with an EC ₅₀ of 700 nM ^[1] .								
IC₅₀ & Target	EC ₅₀ : 700 nM (wnt signaling) ^[1]								
In Vitro	<p>BML-284 (10 μM; 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].</p> <p>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^[1].</p> <p>MCE has not independently confirmed the accuracy of these methods. They are for reference only.</p> <p>Western Blot Analysis^[1]</p> <table border="1"> <tr> <td>Cell Line:</td> <td>Human gastric cancer cell lines MNK45 and AGS</td> </tr> <tr> <td>Concentration:</td> <td>10 μM</td> </tr> <tr> <td>Incubation Time:</td> <td>24 hours</td> </tr> <tr> <td>Result:</td> <td>Induced β-catenin expression and reserved E-cadherin and N-cadherin expression in MNK45 and AGS cells.</td> </tr> </table>	Cell Line:	Human gastric cancer cell lines MNK45 and AGS	Concentration:	10 μM	Incubation Time:	24 hours	Result:	Induced β-catenin expression and reserved E-cadherin and N-cadherin expression in MNK45 and AGS cells.
Cell Line:	Human gastric cancer cell lines MNK45 and AGS								
Concentration:	10 μM								
Incubation Time:	24 hours								
Result:	Induced β-catenin expression and reserved E-cadherin and N-cadherin expression in MNK45 and AGS cells.								
In Vivo	<p>BML-284 hydrochloride (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].</p> <p>MCE has not independently confirmed the accuracy of these methods. They are for reference only.</p>								

CUSTOMER VALIDATION

- Proc Natl Acad Sci U S A. 2021 Jan 12;118(2):e2009539118.

- Chemosphere. 2020 Sep;255:126889.
- Ecotoxicol Environ Saf. 2021 Nov 27;228:113029.
- Ecotox Environ Safe. 2021, 112514.
- Am J Pathol. 2020 Nov;190(11):2237-2250.

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

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