

Product data sheet



MedKoo Cat#: 561455 Name: BML-284 HCl CAS#: 853220-52-7 Chemical Formula: C ₁₉ H ₁₉ ClN ₄ O ₃ Molecular Weight: 386.84	
Product supplied as:	Powder
Purity (by HPLC):	≥ 98%
Shipping conditions	Ambient temperature
Storage conditions:	Powder: -20°C 3 years; 4°C 2 years. In solvent: -80°C 3 months; -20°C 2 weeks.

1. Product description:

BML-284, also known as AMBMP and Wnt agonist 1, is a potent and selective activator of Wnt signaling. It enhances beta-catenin and increases transcript and protein levels of p-gp.

2. CoA, QC data, SDS, and handling instruction

SDS and handling instruction, CoA with copies of QC data (NMR, HPLC and MS analytical spectra) can be downloaded from the product web page under “QC And Documents” section. Note: copies of analytical spectra may not be available if the product is being supplied by MedKoo partners. Whether the product was made by MedKoo or provided by its partners, the quality is 100% guaranteed.

3. Solubility data

Solvent	Max Conc. mg/mL	Max Conc. mM
DMSO	55.0	142.18
DMF	30.0	77.55
Ethanol	0.14	0.36

4. Stock solution preparation table:

Concentration / Solvent Volume / Mass	1 mg	5 mg	10 mg
1 mM	2.59 mL	12.93 mL	25.85 mL
5 mM	0.52 mL	2.59 mL	5.17 mL
10 mM	0.26 mL	1.29 mL	2.59 mL
50 mM	0.05 mL	0.26 mL	0.52 mL

5. Molarity Calculator, Reconstitution Calculator, Dilution Calculator

Please refer the product web page under section of “Calculator”

6. Recommended literature which reported protocols for in vitro and in vivo study

In vitro study

- Gao H, Yu Z, Li Y, Wang X. miR-100-5p in human umbilical cord mesenchymal stem cell-derived exosomes mediates eosinophilic inflammation to alleviate atherosclerosis via the FZD5/Wnt/ β -catenin pathway. *Acta Biochim Biophys Sin (Shanghai)*. 2021 Jul 13;gmab093. doi: 10.1093/abbs/gmab093. Epub ahead of print. PMID: 34254638.
- Liu C, Chen L, Wang W, Qin D, Jia C, Yuan M, Wang H, Guo Y, Zhu J, Zhou Y, Zhao H, Liu T. Emodin Suppresses the Migration and Invasion of Melanoma Cells. *Biol Pharm Bull*. 2021 Jun 1;44(6):771-779. doi: 10.1248/bpb.b20-00807. Epub 2021 Mar 17. PMID: 33731543.

In vivo study

- Yang S, Zhang Y, Zhang Z, Dan J, Zhou Q, Wang X, Li W, Zhou L, Yang L, Xie L. Insulin Promotes Corneal Nerve Repair and Wound Healing in Type 1 Diabetic Mice by Enhancing Wnt/ β -Catenin Signaling. *Am J Pathol*. 2020 Nov;190(11):2237-2250. doi: 10.1016/j.ajpath.2020.08.006. Epub 2020 Aug 26. PMID: 32858016.

7. Bioactivity

Biological target:

BML-284 is a Wnt signaling activator and induces TCF-dependent transcriptional activity with an EC₅₀ of 700 nM.

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In vitro activity

Wnt/ β -catenin pathway activator BML-284 effectively reversed the effects of hUMSC-Ex-miR-100-5p on cell progression and inflammation in eosinophils.

Reference: Acta Biochim Biophys Sin (Shanghai). 2021 Jul 13;gmab093. <https://pubmed.ncbi.nlm.nih.gov/34254638/>

In vivo activity

The results demonstrated that insulin promoted corneal epithelial wound healing and sensation recovery, whereas the expression of molecules involved in the Wnt/ β -catenin pathway was also up-regulated in the injured corneal epithelium. However, XAV-939 limited the insulin-induced epithelial and corneal nerve repair. By contrast, BML-284 treatment promoted the healing of the corneal epithelium and corneal nerve repair in diabetic mice.

Reference: Am J Pathol. 2020 Nov;190(11):2237-2250. <https://pubmed.ncbi.nlm.nih.gov/32858016/>

Note: The information listed here was extracted from literature. MedKoo has not independently retested and confirmed the accuracy of these methods. Customer should use it just for a reference only.