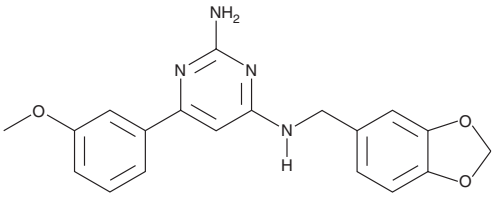
PRODUCT INFORMATION

Wnt Agonist I

Item No. 19903

CAS Registry No.:	853220-52-7
Formal Name:	N^4-(1,3-benzodioxol-5-ylmethyl)-6-(3-methoxyphenyl)-2,4-pyrimidinediamine
Synonym:	BML-284
MF:	$C_{19}H_{18}N_4O_3$
FW:	350.4
Purity:	≥98%
UV/Vis.:	λ_{max}: 215, 294 nm
Supplied as:	A crystalline solid
Storage:	-20°C
Stability:	≥4 years



Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

Laboratory Procedures

Wnt Agonist I is supplied as a crystalline solid. A stock solution may be made by dissolving the Wnt agonist I in the solvent of choice, which should be purged with an inert gas. Wnt Agonist I is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide. The solubility of Wnt agonist I in these solvents is approximately 0.14, 10, and 30 mg/ml, respectively.

Wnt Agonist I is sparingly soluble in aqueous solutions. To enhance aqueous solubility, dilute the organic solvent solution into aqueous buffers or isotonic saline. If performing biological experiments, ensure the residual amount of organic solvent is insignificant, since organic solvents may have physiological effects at low concentrations. We do not recommend storing the aqueous solution for more than one day.

Description

Wnt Agonist I is a cell-permeable activator of Wnt signaling that does not inhibit GSK3β (IC_{50} > 60 µM).[1] It induces nuclear accumulation of β-catenin, increasing transcriptional activity driven by TCF (EC_{50} = 700 nM) and altering embryonic development.[1,2] Wnt Agonist I is effective *in vivo*, decreasing tissue damage and improving renal function after ischemia-reperfusion in rats.[3]

References

1. Liu, J., Wu, X., Mitchell, B., *et al.* A small-molecule agonist of the Wnt signaling pathway. *Agnew. Chem. Int. Ed. Engl.* **44(13)**, 1987-1990 (2005).
2. Lim, J.C., Kania, K.D., Wijesuriya, H., *et al.* Activation of β-catenin signalling by GSK-3 inhibition increases p-glycoprotein expression in brain endothelial cells. *J. Neurochem.* **106(4)**, 1855-1865 (2008).
3. Kuncewitch, M., Yang, W.-L., Corbo, L., *et al.* WNT agonist decreases tissue damage and improves renal function after ischemia-reperfusion. *Shock* **43(3)**, 268-275 (2015).

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