

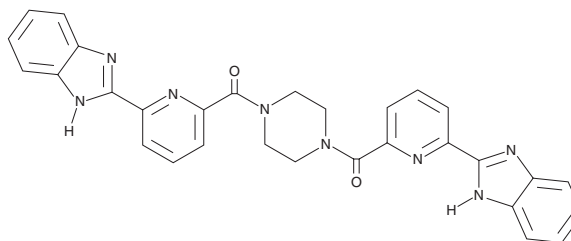
PRODUCT INFORMATION



BT-11

Item No. 41856

CAS Registry No.: 1912399-75-7
Formal Name: 1,1'-(1,4-piperazinediyl)bis[1-[6-(1H-benzimidazol-2-yl)-2-pyridinyl]-methanone]
MF: C₃₀H₂₄N₈O₂
FW: 528.6
Purity: ≥98%
Supplied as: A 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

BT-11 is supplied as a solid. A stock solution may be made by dissolving the BT-11 in the solvent of choice, which should be purged with an inert gas. BT-11 is soluble (≥10 mg/ml) in DMSO.

Description

BT-11 is an activator of the lanthionine synthetase C-like 2 (LANCL2) pathway.¹ It binds to LANCL2 with a K_d value of 7.7 μ M and increases cAMP levels in mouse splenocytes isolated from wild-type, but not *Lancl2*^{-/-}, mice when used at concentrations of 5 and 10 μ M. BT-11 (8 mg/kg) reduces leukocyte infiltration, epithelial erosion, and mucosal thickening in the colon in a mouse model of colitis induced by dextran sulfate (DSS; Item No. 23250). It reduces the percentage of Tnf- α ⁺ CD45⁺ cells and MHC-II⁺ CD11c⁺ granulocytes and increases the percentage of IL-10⁺ CD45⁺ cells isolated from wild-type mice in a model of DSS-induced colitis but has no effect on these parameters in *Lancl2*^{-/-} mice. BT-11 also reduces histopathological changes in wild-type mice in a model of DSS-induced colitis but not in mice with a T cell-specific conditional knockout of *Lancl2*.²

References

1. Carbo, A., Gandour, R.D., Hontecillas, R., *et al.* An N,N-bis(benzimidazolylpicolinoyl)piperazine (BT-11): A novel lanthionine synthetase C-like 2-based therapeutic for inflammatory bowel disease. *J. Med. Chem.* **59**(22), 10113-10126 (2016).
2. Leber, A., Hontecillas, R., Zoccoli-Rodriguez, V., *et al.* Activation of LANCL2 by BT-11 ameliorates IBD by supporting regulatory T cell stability through immunometabolic mechanisms. *Inflamm. Bowel Dis.* **24**(9), 1978-1991 (2018).

WARNING

THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

SAFETY DATA

This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the [complete](#) Safety Data Sheet, which has been sent via email to your institution.

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