

PRODUCT INFORMATION

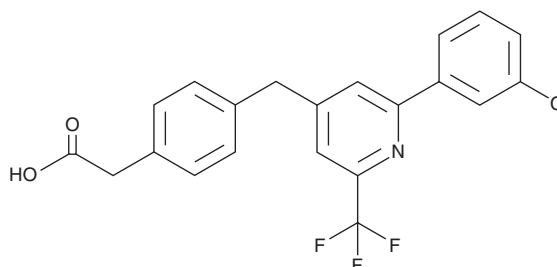


BPN14770

Item No. 34075

CAS Registry No.: 1606974-33-7
Formal Name: 4-[[2-(3-chlorophenyl)-6-(trifluoromethyl)-4-pyridinyl]methyl]-benzeneacetic acid

Synonym: Zanolmilast
MF: C₂₁H₁₅ClF₃NO₂
FW: 405.8
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

BPN14770 is supplied as a solid. A stock solution may be made by dissolving the BPN14770 in the solvent of choice, which should be purged with an inert gas. BPN14770 is soluble in methanol.

Description

BPN14770 is an inhibitor of phosphodiesterase 4D (PDE4D).¹ It selectively inhibits dimeric PDE4D^{S129D} and PDE4D^{S54D}, which mimic the phosphorylated, activated forms of PDE4D, over wild-type dimeric PDE4D, dimeric PDE4D^{S133D}, and monomeric PDE4D2 (IC₅₀s = 7.8, 7.4, 1,018, 2,013, and 127 nM, respectively). BPN14770 (0.3-30 mg/kg) enhances novel object discrimination in mice. It decreases hyperarousal and increases social interaction time, indicating anxiolytic-like activity, nesting, and marble-burying behavior in the *Fmr1*^{-/-} mouse model of fragile X syndrome when administered at a dose of 0.3 mg/kg.²

References

1. Gurney, M.E., Nugent, R.A., Mo, X., *et al.* Design and synthesis of selective phosphodiesterase 4D (PDE4D) allosteric inhibitors for the treatment of Fragile X Syndrome and other brain disorders. *J. Med. Chem.* **62**(10), 4884-4901 (2019).
2. Gurney, M.E., Cogram, P., Deacon, R.M., *et al.* Multiple Behavior Phenotypes of the Fragile-X Syndrome Mouse Model Respond to Chronic Inhibition of Phosphodiesterase-4D (PDE4D). *Sci. Rep.* **7**(1), 14653 (2017).

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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