

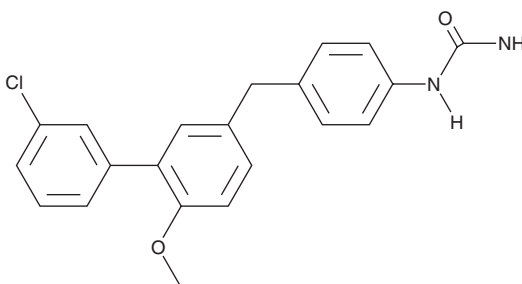
PRODUCT INFORMATION



D159687

Item No. 38778

CAS Registry No.: 1155877-97-6
Formal Name: N-[4-[(3'-chloro-6-methoxy[1,1'-biphenyl]-3-yl)methyl]phenyl]-urea
MF: C₂₁H₁₉ClN₂O₂
FW: 366.8
Purity: ≥98%
UV/Vis.: λ_{max}: 246 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

D159687 is supplied as a crystalline solid. A stock solution may be made by dissolving the D159687 in the solvent of choice, which should be purged with an inert gas. D159687 is soluble in organic solvents such as DMSO and dimethyl formamide. The solubility of D159687 in these solvents is approximately 10 and 20 mg/ml, respectively.

Description

D159687 is a negative allosteric modulator of phosphodiesterase 4D (PDE4D; IC₅₀ = 28 nM for the human enzyme).¹ It is selective for PDE4D over PDE4B (IC₅₀ = 562 nM for the human enzyme), as well as 14 other PDE isoforms (IC₅₀s = >1.4 μM). D159687 decreases forskolin-induced cAMP hydrolysis in HEK293 cells (IC₅₀ = 253 nM) and dextran gel-induced increases in leukotriene E₄ production in isolated human whole blood (IC₅₀ = 44 nM). It impairs novel object recognition in mice when administered at a dose of 3 mg/kg but does not increase anesthesia duration, a proxy measure of emesis induction, in mice at 3 or 10 mg/kg.²

References

1. Burgin, A.B., Magnusson, O.T., Singh, J., *et al.* Design of phosphodiesterase 4D (PDE4D) allosteric modulators for enhancing cognition with improved safety. *Nat. Biotechnol.* **28**(1), 63-70 (2010).
2. Zhang, C., Xu, Y., Zhang, H.-T., *et al.* Comparison of the Pharmacological Profiles of Selective PDE4B and PDE4D Inhibitors in the Central Nervous System. *Sci. Rep.* **7**, 40115 (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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