

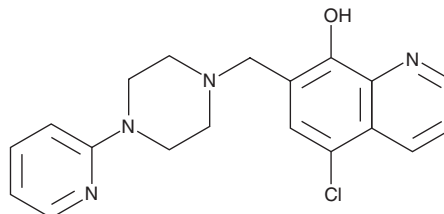
PRODUCT INFORMATION



MLS-1547

Item No. 27648

CAS Registry No.: 315698-36-3
Formal Name: 5-chloro-7-[[4-(2-pyridinyl)-1-piperazinyl]methyl]-8-quinolinol
MF: C₁₉H₁₉ClN₄O
FW: 354.8
Purity: ≥98%
UV/Vis.: λ_{max}: 251, 309 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

MLS-1547 is supplied as a crystalline solid. A stock solution may be made by dissolving the MLS-1547 in the solvent of choice, which should be purged with an inert gas. MLS-1547 is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide (DMF). The solubility of MLS-1547 in these solvents is approximately 5, 10, and 20 mg/ml, respectively.

MLS-1547 is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, MLS-1547 should first be dissolved in DMF and then diluted with the aqueous buffer of choice. MLS-1547 has a solubility of approximately 0.1 mg/ml in a 1:9 solution of DMF:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

Description

MLS-1547 is a G protein-biased agonist of dopamine D₂ receptors (EC₅₀ = 0.37 μM in a calcium mobilization assay).¹ It inhibits forskolin-induced cAMP accumulation in CHO cells expressing human D₂ receptors (EC₅₀ = 0.26 μM) but is inactive in β-arrestin recruitment assays. MLS-1547 antagonizes dopamine-induced β-arrestin recruitment in cell-based assays with IC₅₀ values ranging from 3.8 to 9.9 μM.¹ It is also an inhibitor of type II secretion in Gram-negative bacteria.² MLS-1547 inhibits secretion of phospholipase C (PlcH/N) and the virulence factor elastase (LasB) from *P. aeruginosa* (IC₅₀s = 15 and 13 μM, respectively) and inhibits *B. pseudomallei* protease secretion by 90.8% when used at a concentration of 25 μM.

References

- Free, R.B., Chun, L.S., Moritz, A.E., *et al.* Discovery and characterization of a G protein-biased agonist that inhibits β-arrestin recruitment to the D₂ dopamine receptor. *Mol. Pharmacol.* **86(1)**, 96-105 (2014).
- Moir, D.T., Di, M., Wong, E., *et al.* Development and application of a cellular, gain-of-signal, bioluminescent reporter screen for inhibitors of type II secretion in *Pseudomonas aeruginosa* and *Burkholderia pseudomallei*. *J. Biomol. Screen.* **16(7)**, 694-705 (2011).

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.

WARRANTY AND LIMITATION OF REMEDY

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