

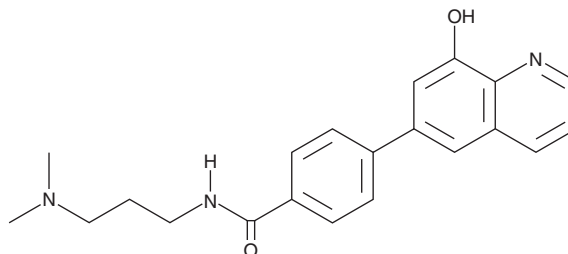
PRODUCT INFORMATION



ML-324

Item No. 17472

CAS Registry No.: 1222800-79-4
Formal Name: N-[3-(dimethylamino)propyl]-4-(8-hydroxy-6-quinolinyl)-benzamide
Synonym: CID-44143209
MF: C₂₁H₂₃N₃O₂
FW: 349.4
Purity: ≥95%
UV/Vis.: λ_{max}: 204, 278 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

ML-324 is supplied as a crystalline solid. A stock solution may be made by dissolving the ML-324 in the solvent of choice, which should be purged with an inert gas. ML-324 is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide (DMF). The solubility of ML-324 in ethanol is approximately 5 mg/ml and approximately 20 mg/ml in DMSO and DMF.

ML-324 is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, ML-324 should first be dissolved in DMSO and then diluted with the aqueous buffer of choice. ML-324 has a solubility of approximately 0.5 mg/ml in a 1:1 solution of DMSO:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

Description

ML-324 is a cell-permeable inhibitor of JMJD2E (KDM4DL; IC₅₀ = 920 nM) that is inactive against lysine-specific demethylase, LSD1.^{1,2} It reduces the expression of immediate early genes of *Herpes simplex* virus (IC₅₀ = ~10 μM) and human cytomegalovirus, blocks viral infection, and suppresses the level of viral reactivation in a ganglia explant model of latently infected mice.¹ The effects of ML-324 are reversible, as viral replication resumes after drug withdrawal.¹

References

1. Liang, Y., Vogel, J.L., Arbuckle, J.H., *et al.* Targeting the JMJD2 histone demethylases to epigenetically control herpesvirus infection and reactivation from latency. *Sci. Transl. Med.* **5(167)**, 1-10 (2013).
2. Rai, G., Kawamura, A., Tumber, A., *et al.* Discovery of ML324, a JMJD2 demethylase inhibitor with demonstrated antiviral activity, in Probe Reports from the NIH Molecular Libraries Program [Internet], MH084681, 1 (2013).

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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