

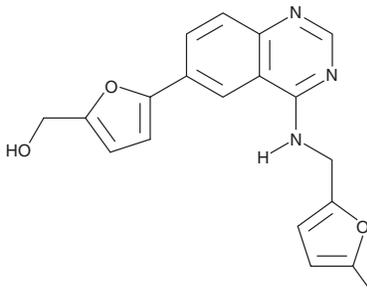
PRODUCT INFORMATION



ML-167

Item No. 18098

CAS Registry No.: 1285702-20-6
Formal Name: 5-[4-[[[5-methyl-2-furanyl)methyl]amino]-6-quinazoliny]-2-furanmethanol
Synonym: CID-44968231
MF: C₁₉H₁₇N₃O₃
FW: 335.4
Purity: ≥98%
UV/Vis.: λ_{max}: 204, 228, 259, 274, 323 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-167 is supplied as a crystalline solid. A stock solution may be made by dissolving the ML-167 in the solvent of choice. ML-167 is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide (DMF), which should be purged with an inert gas. The solubility of ML-167 in ethanol is approximately 0.25 mg/ml and approximately 30 mg/ml in DMSO and DMF.

ML-167 is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, ML-167 should first be dissolved in DMSO and then diluted with the aqueous buffer of choice. ML-167 has a solubility of approximately 0.25 mg/ml in a 1:2 solution of DMSO:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

Description

The Cdc2-like kinases (Clks) and the dual-specificity tyrosine phosphorylation-regulated kinases (DYRKs) are involved in regulating gene splicing. Clks phosphorylate serine/arginine-rich proteins, which are a major component of the spliceosome, whereas DYRKs interact with and activate splicing factors. ML-167 is a selective, ATP-competitive inhibitor of Clk4 with an IC₅₀ value of 136 nM.¹ It is more than 10-fold less active against the closely related kinases Clk1-3, DYRK1A, and DYRK1B (IC₅₀s = 1.5, 1.6, >10, >10, and 4.4 μM, respectively), and minimally active against a panel of other kinases.¹

Reference

1. Rosenthal, A.S., Tanega, C., Shen, M., *et al.* An inhibitor of the Cdc2-like kinase 4 (Clk4). *Probe Reports from the NIH Molecular Libraries Program* (2010).

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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