

Product Data Sheet

Product Name: ML167
Cat. No.: GC14162

Chemical Properties

Cas. No. 1285702-20-6

SMILES CC1=CC=C(O1)CNC2=NC=NC3=C2C=C(C=C3)C4=CC=C(O4)CO

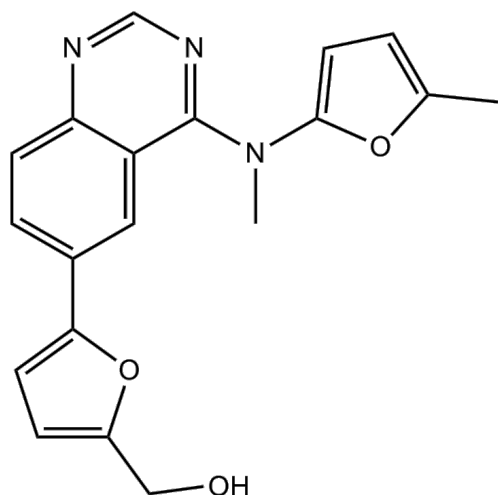
Formula $C_{19}H_{17}N_3O_3$ M.Wt 335.36

Solubility $\geq 16.75\text{mg/mL}$ in DMSO Storage Store at -20°C

General tips For obtaining a higher solubility, please warm the tube at 37°C and shake it in the ultrasonic bath for a while. Stock solution can be stored below -20°C for several months.

Shipping Condition Evaluation sample solution: ship with blue ice All other available size: ship with RT, or blue ice upon request.

Structure



Background

ML167 is a highly selective inhibitor of Cdc2-like kinase 4 (Clk4) with IC₅₀ value of 136nM [1].

The Clk family enzymes play their roles in gene splicing via phosphorylating the major component of the spliceosome, SR proteins. Small molecule probes that target Clk's can be used to study the modulating functions of these kinases in gene splicing. ML167 is found as the first fully selective inhibitor of Clk4 but not other related kinases including Clk1, Clk2 and Clk3 and Dyrk1A/1B. It is 10-fold more potent against Clk4 over other kinases. The treatment of ML167 on Caco-2 cells proves

Caution: Product has not been fully validated for medical applications. For research use only.

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that ML167 is highly cell-permeable. Besides that, ML167 is also found to be an ATP-competitive inhibitor [1].

References:

[1] Rosenthal A S, Tanega C, Shen M, et al. An inhibitor of the Cdc2-like kinase 4 (Clk4). 2011.

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