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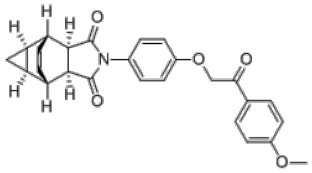
Data Sheet

Global Supplier of Chemical Probes, Inhibitors & Agonists.

Product Name	:	MM0299
Cat. No.	:	PC-49754
CAS No.	:	474255-10-2
Molecular Formula	:	$C_{26}H_{23}NO_5$
Molecular Weight	:	429.47
Target	:	Other Targets
Solubility	:	10 mM in DMSO



Biological Activity

MM0299 (MM 0299) is a potent, selective inhibitor of **lanosterol synthase** (LSS, competition EC50=1.97 nM) with anti-proliferative activity, inhibits Mut6 cell growth (IC50=18.2 nM) and induces the synthesis of 24(S),25-epoxycholesterol (EPC).
MM0299 impedes proliferation of both human GSC lines UTSW63 and UTSW71, with an IC50 of 0.0222 μM and 0.0212 μM, respectively.
MM0299 is efficacious in cultured human GSC lines through the upregulation of 24(S),25-epoxycholesterol (EPC) via the shunt pathway and consequent depletion of the cellular cholesterol pool.
MM0299 inhibits LSS in vitro activity in a dose-dependent manner with IC50 of 2.22 uM.
MM0299 dose-dependent increases (up to 6.48-fold) in the primary LSS substrate (S)-2,3-oxidosqualene (OS), and a dose-dependent decrease (up to 24.5-fold) in the product lanosterol (IC50 =0.0455 μM) in Mut6 cells, also increases the shunt pathway intermediates DOS and EPL (up to 17.9-fold and 25.6-fold, respectively).
MM0299 dose-dependent decreases the canonical intermediates and increases the shunt pathway intermediates via inhibition of Lss.
MM0299 inhibits (S,S)-2,3:22,23-dioxidosqualene (DOS) conversion to 24(S),25-epoxylanosterol (EPL) at a potency comparable with that of OS to lanosterol (IC50=1.60 and 2.22 μM, respectively).

References

Thu P Nguyen, et al. ***Cell Chem Biol***. 2023 Feb 16;30(2):214-229.e18.

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