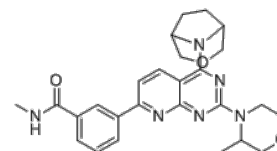


Product Name : MTI-31
Cat. No. : PC-36112
CAS No. : 1567915-38-1
Molecular Formula : C₂₆H₃₀N₆O₃
Molecular Weight : 474.565
Target : mTOR
Solubility : 10 mM in DMSO



Biological Activity

MTI-31 (LXI-15029, mTOR inhibitor-31) is a novel potent, selective **mTORC1/mTORC2** inhibitor with K_d of 0.2 nM (mTOR), displays >5,000-fold selectivity over PIK3CA, PIK3CB and PIK3G.

MTI-31 showed an IC₅₀ value 39 nM in LANCE® assay of mTOR substrate phosphorylation.

MTI-31 dose-dependently inhibits of both the mTORC1 substrates P-S6K1(T389), P-S6(S235/6), P-4EBP1(T70) and mTORC2 substrate P-AKT(S473) tumor cell lines harboring mTOR pathway dysregulation with IC₅₀ of <0.12 uM.

MTI-31 potently inhibited cell proliferation (IC₅₀ <1 mmol/L) and in vivo tumor growth in multiple NSCLC models of EGFR/T790M, EML4-ALK, c-Met or KRAS (MED <10 mg/kg), also suppressed programmed death ligand 1 (PD-L1) in EGFR- and ALK-driven NSCLC, mediated in part by mTORC2/AKT/GSK3β-dependent proteasomal degradation.

References

Qian J, et al. *Oncotarget*. 2016 Oct 11;7(41):67071-67086.

Zhang Q, et al. *Clin Cancer Res*. 2019 Feb 22. pii: clincanres.2548.2018.

Caution: Product has not been fully validated for medical applications. Lab Use Only!

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