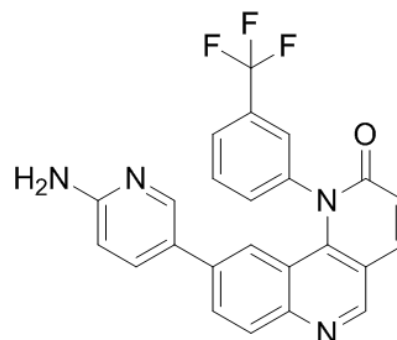


Product Name : Torin2
Cat. No. : PC-43313
CAS No. : 1223001-51-1
Molecular Formula : C₂₄H₁₅F₃N₄O
Molecular Weight : 432.3973
Target : mTOR
Solubility : 10 mM in DMSO



Biological Activity

Torin 2 is a potent, selective, orally available inhibitor of **mTOR**, inhibits mTORC1-dependent T389 phosphorylation on S6K with IC₅₀ of 0.25 nM, exhibits 800-fold selectivity over PI3K, and >100-fold over 440 other protein kinases.

Torin 2 also exhibits potent biochemical and cellular activity against PIKK family kinases including ATM (EC₅₀=28 nM), ATR (EC₅₀=35 nM), and DNA-PK (EC₅₀=118 nM).

Torin 2 inhibits mTOR kinase and mTORC1 signaling activities, results in a prolonged block in negative feedback and consequent T308 phosphorylation on Akt in treated cancer cells.

Torin 2 demonstrates significant growth inhibition against KRAS-driven lung tumors combined with MEK inhibitor AZD6244, does not yield significant efficacy as a single agent.

Torin 2 overcomes the resistance of ALK(F1174L)/MYCN tumors to crizotinib in vivo.

References

Liu Q, et al. *J Med Chem*. 2011 Mar 10;54(5):1473-80.

Liu Q, et al. *Cancer Res*. 2013 Apr 15;73(8):2574-86.

Berry T, et al. *Cancer Cell*. 2012 Jul 10;22(1):117-30.

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

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