Product Data Sheet

Product Name: WYE-687 dihydrochloride
Cat. No.: GC38473

Chemical Properties

Cas. No.	1702364-87-1		
SMILES	O=C(OC)NC1=CC=C(C2=NC(N3CCOCC3)=C4C(N(C5CCN(CC6=CC=CN=C6)CC5)N=C4)=N2)C=C1.[H]Cl.[H]Cl		
Formula	$C_{28}H_{34}Cl_2N_8O_3$	M.Wt	601.53
Solubility	Soluble in DMSO	Storage	Store at -20°C
General tips	For obtaining a higher solubility , please warm the tube at 37 ℃ and shake it in the ultrasonic bath for a while.Stock solution can be stored below -20℃ 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	WYE-687 dihydrochloride		

Background

WYE-687 is an inhibitor of mammalian target of rapamycin (mTOR; IC_{50} = 0.007 ?M).[1] It is selective for mTOR over PI3Kα and PI3Kγ (IC_{50}s = 0.81 and 3.11 ?M, respectively), as well as a panel of 24 additional kinases (IC_{50}s = >50 ?M for all). WYE-687 (0.2, 1, and 5 ?M) decreases phosphorylation of the mTORC1 and mTORC2 substrates Akt and S6 kinase (S6K1) in a cell-free assay. It decreases proliferation of nine cancer cell lines, including breast, prostate, glioma, kidney, and colorectal cancer cells, with IC_{50} values ranging from 0.18 to 1.25 ?M. WYE-687 inhibits survival of HL-60 and U937 leukemia cells in a concentration-dependent manner and reduces tumor growth in a U937 mouse xenograft model when administered at doses of 5 and 25 mg/kg.[2]

1.Yu, K., Toral-Barza, L., Shi, C., et al.Biochemical, cellular, and in vivo activity of novel ATP-competitive and selective inhibitors of the mammalian target of rapamycinCancer Res.69(15)6232-6240(2009) 2.Cheng, F., Wang, L., Shen, Y., et al.Preclinical evaluation of WYE-687, a mTOR kinase inhibitor, as a potential anti-acute myeloid leukemia agentBiochem. Biophys. Res. Commun.470(2)324-330(2016)

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