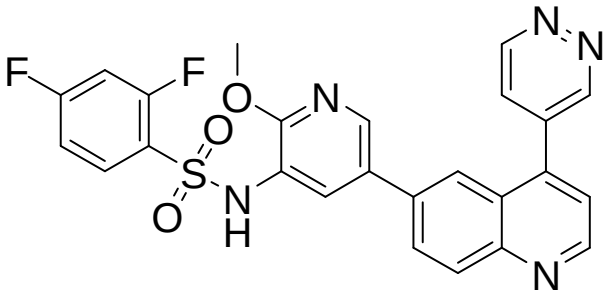
GSK2126458

SYN-1126



2,4-difluoro-N-(2-methoxy-5-(4-(pyridazin-4-yl)quinolin-6-yl)pyridin-3-yl)benzenesulfonamide

CAS Registry No.: 1086062-66-9

Smiles String:
COC1=C(C=C(C=N1)C2=CC3=C(C=CN=C3C=C2)C4=CN=NC=C4)NS(=O)(=O)C5=C(C=C(C=C5)F)F

Molecular Weight: 505.5

Molecular Formula: C25H17F2N5O3S

Lot Number: Refer to vial

1H-NMR: Available on request

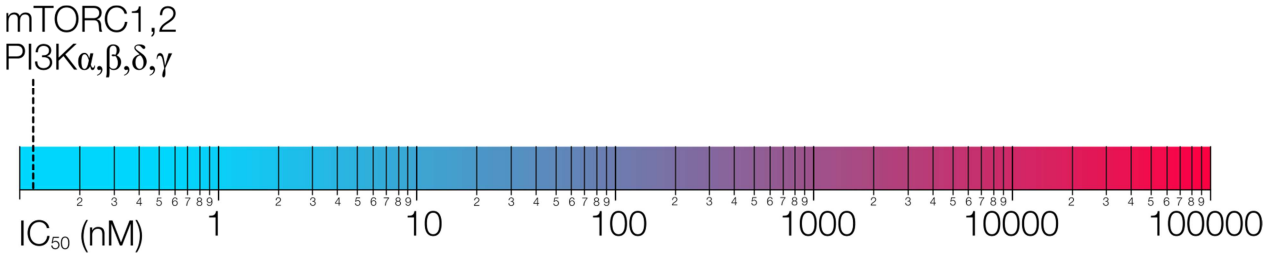
HPLC (Purity): > 95.0% @ 254 nm

ES-MS: Available on request

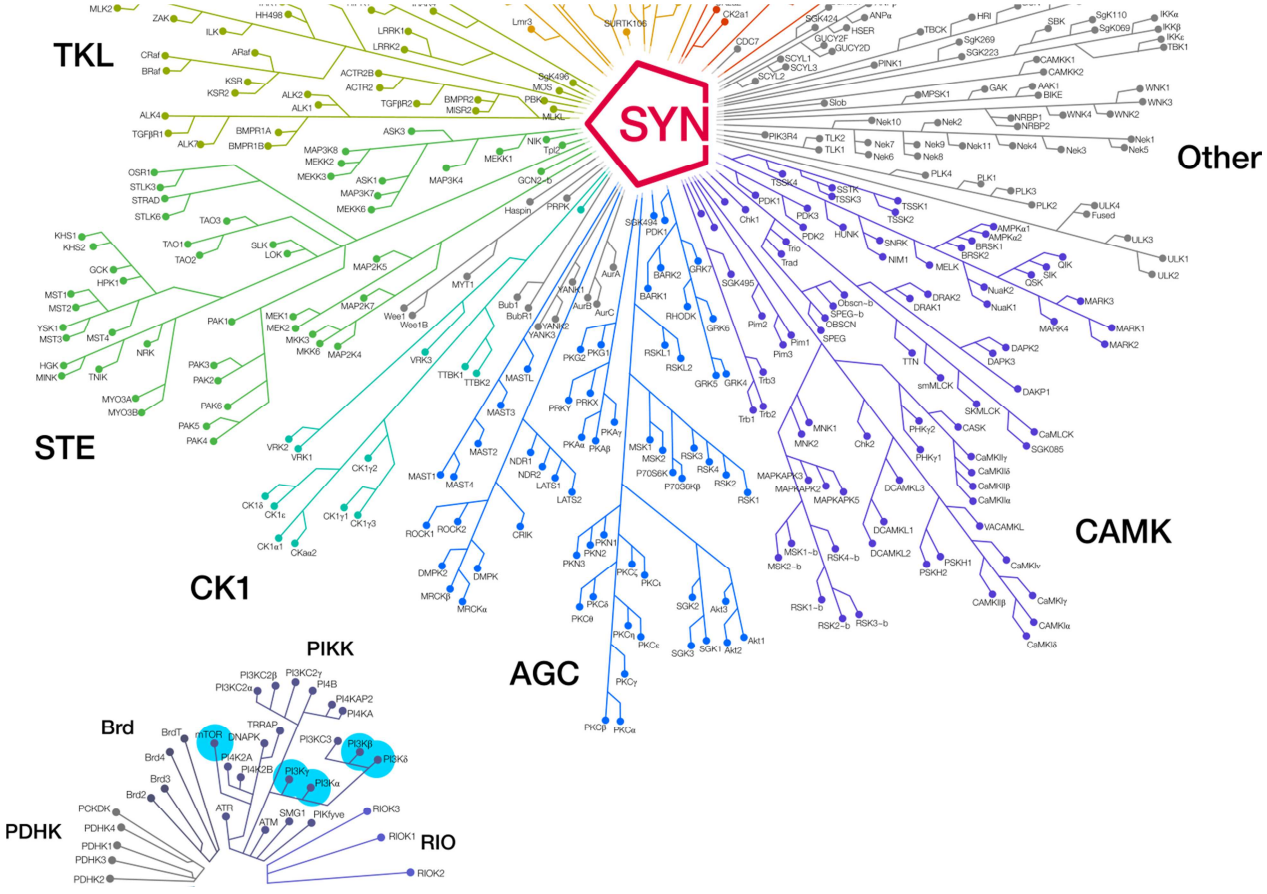
Description:

GSK2126458 is an orally available selective inhibitor of the class I phosphoinositide 3-kinase (PI3K) enzymes and MTOR1/2 complexes. GSK2126458 can inhibit PI3K-alpha (p85alpha/p110alpha) with IC50 of 0.04 nM. GSK2126458 has Ki values in the picomolar range for each of the class I PI3K isoforms and MTOR1/2 complexes. GSK2126458 has potent in vitro and in vivo growth-inhibitory effects on cancer cells. In comparison with other clinical PI3K inhibitors, GSK2126458 is around 100-fold more potent than BEZ235 (6 nM). GSK2126458 also a low picomolar inhibitor of the common activating mutants of p110 R (E542K, E545K, and H1047R) with Ki of 0.008 nM, 0.008 nM and 0.009 nM in human cancer. In mechanistic cellular assays, GSK2126458 caused a significant reduction in the levels of pAKT-S473 with remarkable potency. Consistent with its activity against both PI3KR and mTOR, GSK2126458 also inhibits phosphorylation of AKT-T308 and p70S6K at low nanomolar concentrations. GSK2126458 induces a G1 cell cycle arrest and inhibits cell proliferation in a large panel of cell lines, including T47D and BT474 breast cancer lines.

Biological Activity



Kinome Mapping



Shipping and Storage Temperature

Shipping:
Ambient

Storage:
2 years -20C, Powder 1 month, -4C in DMSO, More than one month -80C in DMSO

Solubility

DMSO 100mg/mL, Ethanol <1mg/mL

Preparing Stock Solutions

Stock Solution (1ml DMSO)	1mM	10mM	20mM	50mM
Mass(mg)	0.5055	5.0550	10.1100	25.2750

References

1. Wang R, Fang X, Lu Y, Wang S. The PDBbind database: collection of binding affinities for protein-ligand complexes with known three-dimensional structures. J Med Chem. 2004 Jun 3;47(12):2977-80.

Ordering Information

To order more of this or any other SYNkinase compound, go to synkinase.com, Call us Toll Free (US Only) at 1- 877-854-6273 or email orders@synkinase.com.