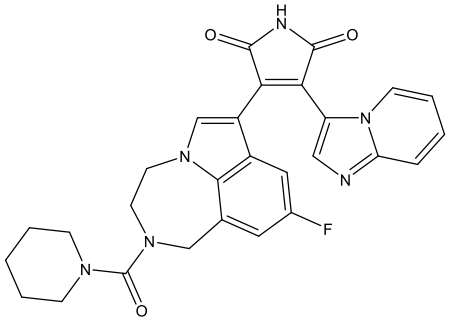
Catalog #10-4854
LY2090314

CAS# 603288-22-8

3-[6-Fluoro-10-(piperidine-1-carbonyl)-1,10-diazatricyclo[6.4.1.0^{4,13}]trideca-2,4,6,8(13)-tetraene-3-yl]-4-imidazo[1,2-a]pyridine-3-ylpyrrole-2,5-dione; 3-(9-Fluoro-2-(piperidine-1-carbonyl)-1,2,3,4-tetrahydro-[1,4]diazepino[6.7.1-hi]indol-7-yl)-4-(imidazo[1.2-a]pyridine-3-yl)-1H-pyrrole-2,5-dione

Lot # FBS4032



Wnt/ß-catenin pathway activator. LY2090314 is a highly potent (IC_{50} = 1.5 nM GSK-3α; 0.9 nM GSK-3ß) and selective inhibitor of glycogen synthase-3-kinase (GSK-3).[1,2] It stabilized ß-catenin levels and elevated expression of Axin2 leading to tumor growth delays in A375 melanoma xenografts.2 LY2090314 significantly reduced growth in multiple neuroblastoma cell lines.[3] It inhibited growth and induced apoptosis in osimertinib-resistant lung cancer cells, specifically those with a mesenchymal phenotype.[4]

1) Engler *et al.* (2004), *Substituted 3-imidazo[1,2-a]pyridine-3-yl-4-(1,2,3,4-tetrahydro-[1,4]diazepino-[6,7,1=hi]indol-7-yl)pyrrole-2,5-diones as and potent inhibitors of glycogen synthase-3-kinase*; J. Med. Chem. **47** 3934
2) Atkinson *et al.* (2015), *Activating the Wnt/ß-Catenin Pathway for the Treatment of Melanoma – Application of LY2090314, a Novel Selective Inhibitor of Glycogen Synthase Kinase-3*; PLoS One **10** e0125028
3) Kunnimalaiyaan *et al.* (2018), *Antiproliferative and apoptotic effect of LY2090314, a GSK-3 inhibitor, in neuroblastoma in vitro* BMC Cancer **18** 560
4) Fukuda *et al.* (2020), *Glycogen synthase kinase-3 inhibition overcomes epithelial-mesenchymal transition-associated resistance to Osimertinib in EGFR-mutant lung cancer*; Cancer Sci. **111** 2374

PHYSICAL DATA

Molecular Weight:	512.54
Molecular Formula:	$C_{28}H_{25}FN_6O_3$
Purity:	>98% (HPLC) NMR: (Conforms)
Solubility:	DMSO (>20 mg/mL)
Physical Description:	Orange solid
Storage and Stability:	Store as supplied at -20°C for up to 2 years from the date of purchase. Solutions in DMSO may be stored at -20°C for up to 3 months.

Focus Biomolecules LLC 400 Davis Drive, Suite 600 Plymouth Meeting PA 19462
www.focusbiomolecules.com