

GSK 3 Inhibitor IX

Catalog No: tcsc3360



Available Sizes

Size: 5mg

Size: 10mg

Size: 50mg



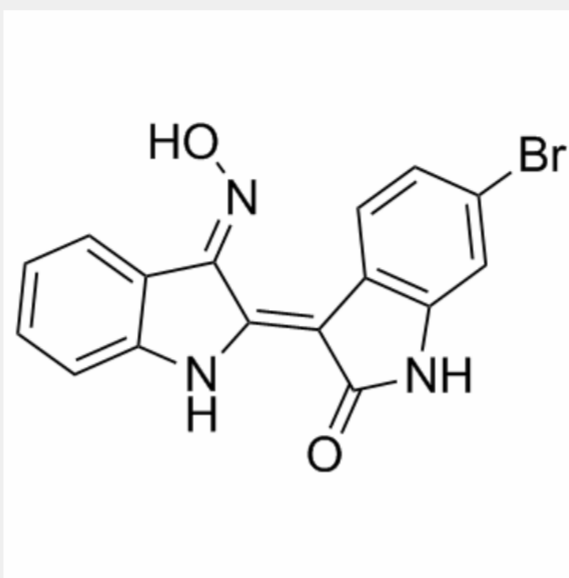
Specifications

CAS No:	667463-62-9
Formula:	$C_{16}H_{10}BrN_3O_2$
Pathway:	Stem Cell/Wnt;PI3K/Akt/mTOR;Cell Cycle/DNA Damage
Target:	GSK-3;GSK-3;CDK
Purity / Grade:	>98%
Solubility:	70.0 mg/mL (196.5 mM) Water: Insoluble
Storage Instruction:	Powder -20°C for 3 years In solvent -80°C for 12 months
Alternative Names:	BIO; MLS 2052; GSK-3 Inhibitor IX; 6-Bromoindirubin-3-Oxime; 6BIO; GSK-3 IX
Observed Molecular Weight:	356.17

Product Description

GSK 3 Inhibitor IX (6-Bromoindirubin-3'-oxime; BIO) is a potent, selective, reversible and ATP-competitive inhibitor of GSK-3 α/β and CDK1-cyclinB complex with IC50s of 5 nM/320 nM/80 nM for (GSK-3 α/β)/CDK1/CDK5, respectively. IC50 & Target: IC50: 5 nM (GSK-3 α/β), 320 nM (CDK1), 80 nM (CDK5)[1] In Vitro: GSK 3 Inhibitor IX (BIO) is a specific inhibitor of glycogen synthase kinase-3 (GSK-3), with IC50 of 5 nM for GSK-3 α/β , shows > 16-fold selectivity over CDK5. GSK 3 Inhibitor IX interacts within the ATP binding pocket of these kinases, reduces β -catenin phosphorylation on a GSK-3-specific site in cellular models, closely mimicks Wnt signaling in Xenopus embryos[1]. In human and mouse embryonic stem cells, GSK 3 Inhibitor IX (BIO) maintains the undifferentiated phenotype and sustains expression of the pluripotent state-specific transcription factors Oct-3/4, Rex-1 and Nanog. GSK 3 Inhibitor IX (BIO)-mediated Wnt activation is functionally reversible, as withdrawal of the compound leads to normal multidifferentiation programs in both human and mouse embryonic stem cells[2]. GSK 3 Inhibitor IX (BIO) promotes proliferation in mammalian cardiomyocytes[3].

GSK 3 Inhibitor IX (BIO) is also a pan-JAK inhibitor, with IC50 values of 0.03, 1.5, 8.0, 0.5 μ M for TYK2, JAK1, JAK2 and JAK3, respectively. GSK 3 Inhibitor IX (BIO) selectively inhibits phosphorylation of STAT3 and induces apoptosis of human melanoma cells[4]. In Vivo: GSK 3 Inhibitor IX (BIO) (50 mg/kg, p.o.) suppresses melanoma tumor growth in a mouse xenograft model[4].



All products are for RESEARCH USE ONLY. Not for diagnostic & therapeutic purposes!

Protocol

Preparing Stock Solution	<div>Volume Concentration</div> <div>Mass</div>	1 mg	5 mg	10 mg
	1mM	2.8076 mL	14.0381 mL	28.0762 mL
	5mM	0.5615 mL	2.8076 mL	5.6152 mL
	10mM	0.2808 mL	1.4038 mL	2.8076 mL