Product Data Sheet

Product Name: MPT0B392
Cat. No.: GC36652

Chemical Properties

Cas. No.	1346169-92-3		
SMILES	NC1=C2C(N=C(S(=O)(C3=CC(OC)=C(OC)C(OC)=C3)=O)C=C2)=CC=C1OC		
Formula	$C_{19}H_{20}N_2O_6S$	M.Wt	404.44
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	MPT0B392		

Background

MPT0B392, an orally active quinoline derivative, induces c-Jun N-terminal kinase (JNK) activation, leading to apoptosis. MPT0B392 inhibits tubulin polymerization and triggers induction of the mitotic arrest, followed by mitochondrial membrane potential loss and caspases cleavage by activation of JNK and ultimately leads to apoptosis. MPT0B392 is demonstrated to be a novel microtubule-depolymerizing agent and enhances the cytotoxicity of sirolimus in sirolimus-resistant acute leukemic cells and the multidrug resistant cell line[1]. JNK Caspase

MPT0B392 (B392) (0.001-0.1 μM; 24 and 48 hours) inhibits the cell viability of HL60, MOLT-4, and CCRF-CEM cells with IC50s of 0.02 μM, 0.03 μM and 0.02 μM, respectively[1].MPT0B392 (0.1 μM; 48 hours) induces apoptosis in HL60 cancer cells[1].MPT0B392 (0.1 μM for 6-48 hours; 0.01-0.1 μM for 24 and 48 hours) triggers cells arrest in the G2/M phase, followed by accumulation in subG1 phase in a concentration and time-dependent manner[1].MPT0B392 (0.1 μM; 48 hours) increases the phosphorylation of Bcl-2, Mcl-1S and decreases in Mcl-1L[1]. Cell Viability Assay[1] Cell Line: HL60 (acute promyelocytic leukemia), MOLT-4 (acute lymphoblastic leukemia), CCRF-CEM (acute lymphoblastic leukemia) cells

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The effects of MPT0B392 (oral gavage; 50 mg/kg or 100 mg/kg for 12 or 14 days) shows relative potent anti-leukemia activity in a vivo xenograft model[1]. Animal Model: Severe combined immunodeficient (SCID) mice [1]

[1]. Chao MW, et al. An oral quinoline derivative, MPT0B392, causes leukemic cells mitotic arrest and overcomes drug resistant cancer cells. Oncotarget. 2017 Apr,8(17):27772-27785.

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