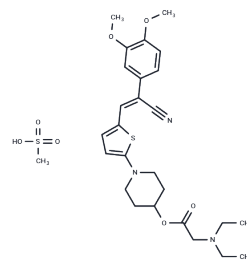


YHO-13351

Chemical Properties

CAS No. : 1346753-00-1
Formula: C₂₇H₃₇N₃O₇S₂
Molecular Weight: 579.73
Appearance: no data available
Storage: Powder: -20°C for 3 years | In solvent: -80°C for 1 year



Biological Description

Description	YHO-13351 is the water-soluble prodrug of YHO-13177, which is a potent and specific BCRP inhibitor.
Targets(IC50)	Epigenetic Reader Domain
In vitro	YHO-13177 enhances SN-38, mitoxantrone and topotecan in BCRP transduced human colon cancer HCT116 (HCT116/BCRP) cells and BCRP-expressing SN-38 resistant human lung cancer A549 (A549/SN4) Cytotoxicity in cells, but little effect on parental cells. In addition, YHO-13177 potentiates the cytotoxicity of SN-38 in human lung cancer NCI-H460 and NCI-H23, myeloma RPMI-8226, and pancreatic cancer AsPC-1 cells that intrinsically expressed BCRP. YHO-13177 increases the intracellular accumulation of Hoechst 33342, a substrate of BCRP, at 30 minutes and partially suppresses the expression of BCRP protein at more than 24 hours after its treatment in both HCT116/BCRP and A549/SN4 cells .
In vivo	YHO-13351 was rapidly converted into YHO-13177 after its oral or intravenous administration In mice. Coadministration of irinotecan with YHO-13351 significantly increased the survival time of mice inoculated with BCRP-transduced murine leukemia P388 cells and suppressed the tumor growth in an HCT116/BCRP xenograft model, whereas irinotecan alone had little effect in these tumor models .

Solubility Information

Solubility	DMSO: 38 mg/mL (65.55 mM), (< 1 mg/ml refers to the product slightly soluble or insoluble)
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A DRUG SCREENING EXPERT

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	1.7249 mL	8.6247 mL	17.2494 mL
5 mM	0.345 mL	1.7249 mL	3.4499 mL
10 mM	0.1725 mL	0.8625 mL	1.7249 mL
50 mM	0.0345 mL	0.1725 mL	0.345 mL

Please select the appropriate solvent to prepare the stock solution, according to the solubility of the product in different solvents. Please use it as soon as possible.

Reference

Yamazaki R, et al. Novel acrylonitrile derivatives, YHO-13177 and YHO-13351, reverse BCRP/ABCG2-mediated drug resistance in vitro and in vivo. Mol Cancer Ther. 2011 Jul;10(7):1252-63.

Inhibitor · Natural Compounds · Compound Libraries · Recombinant Proteins

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