

YCH1899

Chemical Properties

CAS No. :

Formula: C₂₅H₁₈BrFN₆O₃

Molecular Weight: 549.35

Storage: Powder: -20°C for 3 years | In solvent: -80°C for 1 year

Actual storage temperature shall be subject to the COA.

Biological Description

Description	YCH1899, an orally active PARP inhibitor, demonstrates potent inhibition of PARP1/2 with an IC ₅₀ of less than 0.001 nM. It shows marked antiproliferative efficacy against Olaparib-resistant (Capan-1/OP) and Talazoparib-resistant (Capan-1/TP) cells with IC ₅₀ values of 0.89 nM and 1.13 nM, respectively. Moreover, YCH1899 possesses favorable pharmacokinetic attributes in rats [1].
Targets(IC ₅₀)	PARP
In vitro	YCH1899 exhibited significant antiproliferative activity against Capan-1, Capan-1/OP, and Capan-1/TP cells with corresponding IC ₅₀ values of 0.10, 0.89, and 1.13 nM [1]. At concentrations ranging from 0.001 to 1 nM for 4 hours, YCH1899 stabilized PARP1-DNA complexes and inhibited the formation of PARP [1]. Additionally, YCH1899 demonstrated inhibitory effects on the proliferation of both BRCA-mutated and wild-type cells (V-C8, V79, HCT-15, HCC1937) with IC ₅₀ s between 1.19 and 44.24 nM after 3.5 hours of treatment [1]. When applied at 1 μM for 24 hours, YCH1899 induced DNA damage in Capan-1, Capan-1/OP, and Capan-1/TP cells, leading to a significant increase in γH2AX levels [1]. Finally, treatment with YCH1899 at 1 μM for 48 hours significantly reduced Homologous Recombination (HR) repair activity in U2OS-DR-GFP cells [1].
In vivo	YCH1899, administered intravenously at a dose of 5 mg/kg, demonstrated moderate clearance in rats [1]. The compound successfully overcame Talazoparib resistance in xenograft mouse tumor models of MDA-MB-436/OP and Capan-1/R, with significant tumor volume reduction observed at oral doses of 6.25, 12.5, and 25 mg/kg once daily for 27 days and 12.5 and 25 mg/kg once daily for 21 days, respectively [1].

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	1.8203 mL	9.1017 mL	18.2033 mL
5 mM	0.3641 mL	1.8203 mL	3.6407 mL
10 mM	0.182 mL	0.9102 mL	1.8203 mL
50 mM	0.0364 mL	0.182 mL	0.3641 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.

Note: The dilution table applies only to solid products. For liquid products, please calculate the stock solution based on the stated concentration and/or density.

Inhibitor · Natural Compounds · Compound Libraries · Recombinant Proteins

This product is for Research Use Only · Not for Human or Veterinary or Therapeutic Use

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