DB008

Cat. No.: HY-150221

CAS No.: 2991637-98-8

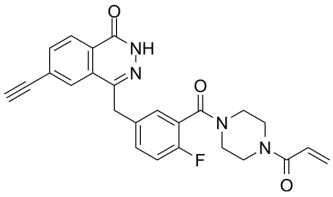
Molecular Formula: $C_{25}H_{21}FN_4O_3$

Molecular Weight: 444.46

Target: PARP

Pathway: Cell Cycle/DNA Damage; Epigenetics

Storage: 4°C, sealed storage, away from moisture and light
* In solvent : -80°C, 6 months; -20°C, 1 month (sealed storage, away from moisture and light)



SOLVENT & SOLUBILITY

In Vitro

DMSO : 100 mg/mL (224.99 mM; Need ultrasonic)

Preparing Stock Solutions	Mass / Solvent / Concentration	1 mg	5 mg	10 mg
	1 mM	2.2499 mL	11.2496 mL	22.4992 mL
	5 mM	0.4500 mL	2.2499 mL	4.4998 mL
	10 mM	0.2250 mL	1.1250 mL	2.2499 mL

Please refer to the solubility information to select the appropriate solvent.

In Vivo

1. Add each solvent one by one: 10% DMSO >> 40% PEG300 >> 5% Tween-80 >> 45% saline
   Solubility: ≥ 5 mg/mL (11.25 mM); Clear solution
2. Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline)
   Solubility: ≥ 5 mg/mL (11.25 mM); Clear solution
3. Add each solvent one by one: 10% DMSO >> 90% corn oil
   Solubility: ≥ 5 mg/mL (11.25 mM); Clear solution

BIOLOGICAL ACTIVITY

Description

DB008 is potent and selective PARP16 inhibitor with an IC_{50} value of 0.27 μM, containing an acrylamide electrophilic reagent. DB008 is membrane-permeable and marks PARP16 selectively[1]. DB008 is a click chemistry reagent, it contains an Alkyne group and can undergo copper-catalyzed azide-alkyne cycloaddition (CuAAc) with molecules containing Azide groups.

IC_{50} & Target

PARP16
0.27 μM (IC_{50})

In Vitro

DB008 (0-1μM; 0-120 min; HEK 293T cells) covalently modifies Cys169 of PARP16 and exhibits excellent proteome-wide

selectivity in the irreversible binding mode[1].

DB008 (100 nM; 16 h; HAP1 WT and HAP1 PARP16 KO cells) rescues nutrient starvation-induced loss of soluble PARP16[1].

MCE has not independently confirmed the accuracy of these methods. They are for reference only.

REFERENCES

[1]. Bejan DS, et, al. Structure-guided design and characterization of a clickable, covalent PARP16 inhibitor. Chem Sci. 2022 Nov 16;13(46):13898-13906.

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