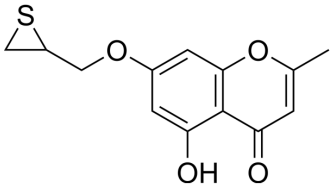
HSP27 inhibitor J2

Cat. No.:	HY-124653
CAS No.:	2133499-85-9
Molecular Formula:	$C_{13}H_{12}O_4S$
Molecular Weight:	264.3
Target:	HSP
Pathway:	Cell Cycle/DNA Damage; Metabolic Enzyme/Protease
Storage:	Powder -20°C 3 years 4°C 2 years In solvent -80°C 2 years -20°C 1 year



SOLVENT & SOLUBILITY

In Vitro

DMSO : 20 mg/mL (75.67 mM; Need ultrasonic)

Preparing Stock Solutions	Mass / Solvent / Concentration	1 mg	5 mg	10 mg
	1 mM	3.7836 mL	18.9179 mL	37.8358 mL
	5 mM	0.7567 mL	3.7836 mL	7.5672 mL
	10 mM	0.3784 mL	1.8918 mL	3.7836 mL

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

In Vivo

1. Add each solvent one by one: 50% PEG300 >> 50% saline
   Solubility: 5 mg/mL (18.92 mM); Suspended solution; Need ultrasonic and warming and heat to 48°C
2. Add each solvent one by one: 10% DMSO >> 90% corn oil
   Solubility: ≥ 2 mg/mL (7.57 mM); Clear solution

BIOLOGICAL ACTIVITY

Description

HSP27 inhibitor J2 (J2) is a HSP27 inhibitor, which significantly induces abnormal HSP27 dimer formation and inhibits a production of HSP27 giant polymers, thereby having an effect of inhibiting a chaperone function of the HSP27 and reducing a cell protection function thereof. HSP27 inhibitor J2 (J2) remarkably enhances the antiproliferative activity of 17-AAG and sensitizes cisplatin-induced lung cancer cell growth inhibition[1][2].

IC_{50} & Target

HSP27[2]

In Vitro

HSP27 inhibitor J2 (10 μM; 12 h) induces significant abnormal HSP27 dimer formation in NCI-H460[1].
HSP27 inhibitor J2 (10 μM; 24 h) increases 17-AAG-induced apoptosis in shCTRL cells[1].
MCE has not independently confirmed the accuracy of these methods. They are for reference only.

CUSTOMER VALIDATION

- J Exp Clin Cancer Res. 2023 Apr 4;42(1):80.
- Int J Mol Sci. 2023 Jul 18, 24(14), 11598.
- Biomedicines. 2022, 10(10), 2489.
- University of Zagreb. Department of Biology. 2021 Sep.

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REFERENCES

[1]. Hwang SY, et al. Synthesis and biological effect of chrom-4-one derivatives as functional inhibitors of heat shockprotein 27. Eur J Med Chem. 2017 Oct 20;139:892-900.

[2]. Younghwa Na, et al. Methods for treating pulmonary fibrosis using chromenone derivatives.

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