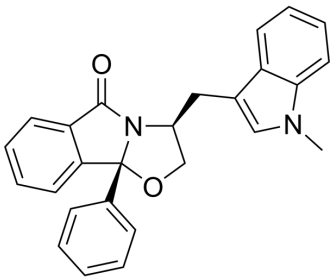
SLMP53-2

Cat. No.:	HY-153202
CAS No.:	1826116-38-4
Molecular Formula:	$C_{26}H_{22}N_2O_2$
Molecular Weight:	394.47
Target:	Apoptosis; MDM-2/p53
Pathway:	Apoptosis
Storage:	Please store the product under the recommended conditions in the Certificate of Analysis.



BIOLOGICAL ACTIVITY

Description

SLMP53-2 is a mutant p53 reactivator. SLMP53-2 restores wild-type-like conformation and DNA-binding ability of mutp53-Y220C by enhancing its interaction with the Hsp70, leading to the reestablishment of p53 transcriptional activity. SLMP53-2 can induce cell cycle arrest, apoptosis and endoplasmic reticulum (ER) stress. SLMP53-2 exhibits antitumor activity[1][2].

In Vitro

SLMP53-2 (3.12-50 μM; 48 h) inhibits the growth of HuH-7 and HCC1419 cells with similar IC_{50} values. SLMP53-2 shows significantly lower growth inhibitory activity against non-tumoral HFF-1 cells (IC_{50} of 50 μM)[1].

SLMP53-2 (14-28 μM; 48-72 h) induces G0/G1-phase cell cycle arrest and apoptosis in HuH-7 cells[1].

SLMP53-2 (0.9-14 μM; 14 days) displays a concentration-dependent growth inhibitory effect on colony formation in HuH-7 cells[1].

SLMP53-2 (28 μM; 24 h) increases the levels of XBP1 nuclear protein, spliced XBP1 (sXBP1) mRNA, and phosphorylated eIF2α in HuH-7 cells[1].

SLMP53-2 (14 μM; 16-48 h) increases the protein levels of MDM2, p21, GADD45, BAX, and KILLER, while downregulating survivin and VEGF, in HuH-7 cells, an effect abolished in HuH-7 p53KO cells[1].

LMP53-2 (1.5 μM) sensitizes HuH-7 cells to Sorafenib[1].

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

In Vivo

SLMP53-2 (50 mg/kg; i.p. for five administrations) reduces the tumor volume and weight in nude mice carrying HuH-7 xenografts with no apparent toxic side effects[1].

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

Animal Model:	Female Swiss nude mice injected with HuH-7 cells[1]
Dosage:	50 mg/kg
Administration:	Twice-weekly intraperitoneal injections for five administrations
Result:	Displayed anti-tumor activity in HCC xenograft mouse models. Showed no significant variation of body weight throughout the experiment. No significant differences were observed between the weight of spleen, liver, heart, and kidneys.

REFERENCES

[1]. Gomes S, et, al. SLMP53-2 Restores Wild-Type-Like Function to Mutant p53 through Hsp70: Promising Activity in Hepatocellular Carcinoma. Cancers (Basel). 2019 Aug 10;11(8):1151.

[2]. Loureiro JB, et, al. Mutant p53 reactivator SLMP53-2 hinders ultraviolet B radiation-induced skin carcinogenesis. Pharmacol Res. 2022 Jan;175:106026.

Tel: 609-228-6898 Fax: 609-228-5909 E-mail: tech@MedChemExpress.com

Address: 1 Deer Park Dr, Suite Q, Monmouth Junction, NJ 08852, USA