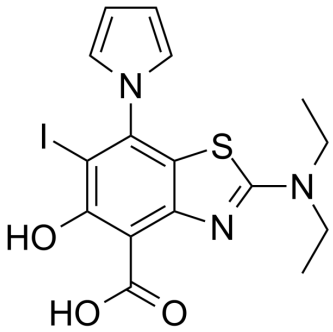
MB710

Cat. No.:	HY-120373
CAS No.:	2230044-57-0
Molecular Formula:	$C_{16}H_{16}IN_3O_3S$
Molecular Weight:	457.29
Target:	MDM-2/p53
Pathway:	Apoptosis
Storage:	Powder -20°C 3 years 4°C 2 years In solvent -80°C 6 months -20°C 1 month



SOLVENT & SOLUBILITY

In Vitro

DMSO : 16.67 mg/mL (36.45 mM; Need ultrasonic)

Preparing Stock Solutions

Solvent / Mass / Concentration	1 mg	5 mg	10 mg
1 mM	2.1868 mL	10.9340 mL	21.8680 mL
5 mM	0.4374 mL	2.1868 mL	4.3736 mL
10 mM	0.2187 mL	1.0934 mL	2.1868 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: 1.25 mg/mL (2.73 mM); Suspended solution; Need ultrasonic
2. Add each solvent one by one: 10% DMSO >> 90% corn oil
   Solubility: 1.25 mg/mL (2.73 mM); Suspended solution; Need ultrasonic

BIOLOGICAL ACTIVITY

Description

MB710, an aminobenzothiazole derivative, is a stabilizer of oncogenic p53 mutation Y220C. MB710 binds tightly to the Y220C pocket and stabilizes p53-Y220C, with a K_d of 4.1 μM. MB710 shows anticancer activity in p53-Y220C cell lines[1].

IC_{50} & Target

Kd: 4 μM (p53-Y220C)

In Vitro

MB710 (0-200 μM; 72 hours) shows relatively low toxicity against all cell lines tested at concentrations up to 60 μM, while showing initial selective viability reduction at higher concentrations[1].

MB710 (72 hours) treats cancer cell lines NUGC3, NUGC4, WI38 and SW1088, with IC_{50}s of 90, 120, >120, >120 μM, respectively [1].

MB710 (0-120 μM; 72 hours; HUH-7 cells) shows stronger cytotoxic effects in presence of p53-Y220C[1].

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

Cell Viability Assay[1]

Cell Line:	NUGC3 (mutant p53 Y220C), HUH-7 (mutant p53 Y220C), NUGC4 (p53 WT), HUH-6 cells (p53 WT)
Concentration:	0-200 μM
Incubation Time:	72 hours
Result:	Showed relatively low toxicity against all cell lines tested at concentrations up to 60 μM. NUGC3 was the most sensitive cell line.

REFERENCES

[1]. Baud MGJ, et al. Aminobenzothiazole derivatives stabilize the thermolabile p53 cancer mutant Y220C and show anticancer activity in p53-Y220C cell lines. Eur J Med Chem. 2018;152:101-114.

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