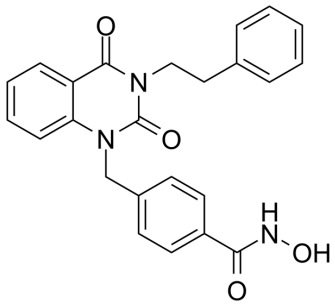
J22352

Cat. No.:	HY-126147
CAS No.:	2252395-44-9
Molecular Formula:	$C_{24}H_{21}N_3O_4$
Molecular Weight:	415.44
Target:	HDAC
Pathway:	Cell Cycle/DNA Damage; Epigenetics
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 : 125 mg/mL (300.89 mM; Need ultrasonic)

Preparing Stock Solutions	Solvent / Mass / Concentration	1 mg	5 mg	10 mg
	1 mM	2.4071 mL	12.0354 mL	24.0709 mL
	5 mM	0.4814 mL	2.4071 mL	4.8142 mL
	10 mM	0.2407 mL	1.2035 mL	2.4071 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: ≥ 2.08 mg/mL (5.01 mM); Clear solution
2. Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline)
   Solubility: ≥ 2.08 mg/mL (5.01 mM); Clear solution
3. Add each solvent one by one: 10% DMSO >> 90% corn oil
   Solubility: ≥ 2.08 mg/mL (5.01 mM); Clear solution

BIOLOGICAL ACTIVITY

Description

J22352 is a PROTAC (proteolysis-targeting chimeras)-like and highly selective HDAC6 inhibitor with an IC_{50} value of 4.7 nM. J22352 promotes HDAC6 degradation and induces anticancer effects by inhibiting autophagy and eliciting the antitumor immune response in glioblastoma cancers, and leading to the restoration of host antitumor activity by reducing the immunosuppressive activity of PD-L1[1].

IC_{50} & Target

HDAC6
4.7 nM (IC_{50})

In Vitro

J22352 (0.1-20 μM; 72 hours) decreases U87MG cell viability in a dose-dependent manner[1].
J22352 (10 μM; 24 hours) shows a dose-dependent decrease in HDAC6 protein abundance[1].
MCE has not independently confirmed the accuracy of these methods. They are for reference only.

Cell Viability Assay[1]

Cell Line:	U87MG cells
Concentration:	0.1 μM; 0.5 μM; 1μM; 2.5 μM; 5 μM; 10 μM; 20 μM
Incubation Time:	72 hours
Result:	A dose-dependent decrease on U87MG cell proliferation.

Western Blot Analysis[1]

Cell Line:	U87MG cells
Concentration:	10 μM
Incubation Time:	24 hours
Result:	A dose-dependent decrease in aberrant overexpression of HDAC6 in glioblastoma.

In Vivo

J22352 (10 mg/kg; given i.p. per day for 14 days in male nude mice) results in a >80% tumor growth inhibition (TGI) rate.
J22352 is well tolerated in mice[1].
MCE has not independently confirmed the accuracy of these methods. They are for reference only.

Animal Model:	Male nude mice (BALB/cAnN.Cg-Foxnlnu/CrlNarl, 4-6 weeks old)[1]
Dosage:	10 mg/kg
Administration:	Given i.p.; per day for 14 days
Result:	Marked anti-tumor effects and well tolerated in mice.

REFERENCES

[1]. Liu JR, et al. High-selective HDAC6 inhibitor promotes HDAC6 degradation following autophagy modulation and enhanced antitumor immunity in glioblastoma. Biochem Pharmacol. 2019 May; 163:458-471.

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