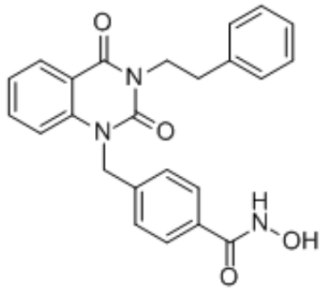
J22352

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:	Please store the product under the recommended conditions in the COA.



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].

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].

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.

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