Data Sheet (Cat.No.T212005)

TargetMol

DDO-4033

Chemical Properties

CAS No. :

Formula:

Molecular Weight:

Storage: Powder: -20°C for 3 years | In solvent: -80°C for 1 year
Actual storage temperature shall be subject to the COA.

Biological Description

Description	DDO-4033 is an SPOP inhibitor with an IC50 of 16.9 μM and a Kd of 15.1 μM. It hinders the malignant migration, invasion, and proliferation of clear cell renal cell carcinoma (ccRCC) cell lines. DDO-4033 disrupts the recruitment of the substrate LATS1 by SPOP, inhibiting its polyubiquitination and subsequent degradation, which leads to the upregulation of LATS1 expression. This compound demonstrates significant antitumor activity and can be utilized in renal cell carcinoma research.
Targets(IC50)	E1/E2/E3 Enzyme,YAP
In vitro	DDO-4033 exhibits antiproliferative activity against 786-O, A498, A549, and HK-2 cells with IC50 values of 1.1, 0.68, 19.96, and 18.78 μM, respectively, but shows weaker activity against HepG2 cells with IC50 > 50 μM. In the range of 0-3 μM over 0-32 hours, DDO-4033 inhibits SPOP-mediated ubiquitination and degradation of LATS1, leading to a decrease in mRNA levels of CTGF and CYR61 genes in A498 cells. Furthermore, at concentrations of 0-5 μM for 24 hours, it suppresses colony formation and reduces migration ability of A498 cells. DDO-4033 demonstrates affinity for SPOP in MST, BLI, and ITC assays, with Kd values of 15.1, 4.96, and 4.94 μM, respectively.
In vivo	In the A498-Luc xenograft BALB/c nude mouse model, DDO-4033 (10-50 mg/kg, tumor injection (i.t.) and peritumoral injection (PTI), once daily for 3 weeks) inhibits tumor growth, upregulates LATS1, and activates the Hippo pathway.