Data Sheet (Cat.No.T209387)

TargetMol

Polθ/PARP-IN-1

Chemical Properties

CAS No. :

Formula: C38H33ClFN7O5S

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	Polθ/PARP-IN-1 (compound 25d) is a potent dual inhibitor of DNA polymerase theta (Polθ) and PARP, with IC50 values of 45.6 nM and 5.4 nM, respectively. This compound exhibits antiproliferative activity, induces apoptosis and cell cycle arrest at the G2/M phase, leading to DNA damage, and demonstrates antitumor properties.
Targets(IC50)	Apoptosis,DNA/RNA Synthesis,PARP
In vitro	Polθ/PARP-IN-1 (compound 25d) exhibits antiproliferative activity against HCC1937, MDA-MB-436, HCT116, SW48, SKOV-3, and MCF-10A cell lines with IC50 values of 20.9, 2.7, 8.9, 2.9, 18.9, and >80 μM, respectively. At a concentration of 2 μM over 3 days, this compound induces apoptosis and causes cell cycle arrest in the G2/M phase, leading to DNA damage.
In vivo	Polθ/PARP-IN-1, administered at doses of 20 or 40 mg/kg via intraperitoneal injection daily for 21 days, effectively inhibits tumor growth in the MDA-MB-436 xenograft model.