Data Sheet (Cat.No.T211784)

TargetMol

MST3-IN-1

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	MST3-IN-1 is a selective and orally active MST3 inhibitor with an IC50 of 122.4 nM. It exhibits antiproliferative activity in HepG2 cells, effectively induces apoptosis, and causes cell cycle arrest at the G2/M phase. In HepG2 xenograft mouse models, MST3-IN-1 significantly suppresses tumor growth, making it useful for liver cancer research.
Targets(IC50)	Apoptosis,Bcl-2 Family,Hippo pathway,Caspase
In vitro	MST3-IN-1 (Compound LD-1) exhibits antiproliferative activity against various cancer cell lines with GI 50 values of 0.68 μM for HepG2 cells, 0.77 μM for HCT116 cells, and 0.83 μM for H226 cells, while its inhibitory effect on HK2 cells exceeds 30 μM, indicating good selectivity. MST3-IN-1 (1 μM) achieves an inhibition rate on MST3 as high as 95.49%, while only 66.51% on AKT2. Additionally, MST3-IN-1 (0.25-2 μM, 24 h) can induce apoptosis in HepG2 cells, potentially inhibiting their proliferation by causing G2/M phase arrest. Furthermore, MST3-IN-1 (0.33-3 μM, 24 h) reduces p-MST3 expression levels in a concentration-dependent manner without affecting the overall protein expression of MST3.
In vivo	MST3-IN-1 (Compound LD-1) demonstrates effective inhibition of liver cancer tumor growth in the HepG2 xenograft mouse model when administered orally at a dose of 40 mg/kg daily for 15 consecutive days.

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