

Tubulin/CDC5L-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	Tubulin/CDC5L-IN-1 is a dual inhibitor targeting Tubulin and CDC5L. It specifically targets CDCL5 with a KD value of 103.7 μ M. This compound inhibits the proliferation of various cancer cells and induces G2/M phase arrest. Tubulin/CDC5L-IN-1 also promotes apoptosis (apoptosis) and the production of reactive oxygen species (ROS), and possesses anti-angiogenic properties. It is useful in cancer research, including studies on colon cancer.
Targets(IC50)	Apoptosis
In vitro	Tubulin/CDC5L-IN-1 (Compound 11i) effectively inhibits the proliferation of HeLa, HCT 116, A2780, and A549 cells with IC50 values of 0.046, 0.035, 0.096, and 0.112 μ M, respectively. It demonstrates antiproliferative effects in drug-resistant cancer cells with IC50 values ranging from 0.089 to 0.172 μ M. The compound inhibits microtubule assembly at concentrations of 1-100 μ M over 0-30 minutes, showing an IC50 of 28.8 μ M. Tubulin/CDC5L-IN-1 suppresses colony formation in HeLa and HCT 116 cells at concentrations between 0.125-0.05 μ M over 24 hours. It induces G2/M phase arrest in HCT 116 cells at 0.125-0.1 μ M for 12 hours and promotes apoptosis and reactive oxygen species (ROS) production in HCT 116 cells at 0.05-0.2 μ M for 24 hours. Additionally, it inhibits the formation of capillary-like structures in human umbilical vein endothelial cells (HUVECs) within 4 hours at concentrations of 0.05-0.2 μ M. Tubulin/CDC5L-IN-1 also inhibits DNA-dependent protein kinase and cell division cycle 7 at a concentration of 5 μ M.
In vivo	Tubulin/CDC5L-IN-1 (Compound 11i), administered via intraperitoneal injection every two days at doses of 7.5-20 mg/kg, effectively inhibits tumor growth in HCT116 xenograft mouse models.

Inhibitor · Natural Compounds · Compound Libraries · Recombinant Proteins

This product is for Research Use Only · Not for Human or Veterinary or Therapeutic Use

Tel:781-999-4286 E_mail:info@targetmol.com Address:34 Washington Street,Wellesley Hills,MA 02481