Data Sheet (Cat.No.T69874)

TargetMol

LLS30

Chemical Properties

CAS No. : 2138367-58-3

Formula: C34H33Cl4N5O3

Molecular Weight: 701.47

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	LLS30 is an allosteric inhibitor of Galectin-1 (Gal-1). LLS30 inhibits the downstream MEK/ERK signaling pathway and also inhibits Akt phosphorylation. LLS30 exhibits potent proliferation-inhibitory activity against various prostate cancer cell lines.
Targets(IC50)	Others
In vitro	Methods: NF96.2 and NF02.2 cells were treated with LLS30 at various concentrations (0, 1.5, 3, 10, 20, 50, 100 μM) for 72 hours, and cell viability was assessed using the MTT assay. Results: LLS30 inhibited proliferation in a dose-dependent manner, with IC_{50} values of 2.9 μM and 3.6 μM for NF96.2 and NF02.2, respectively. [1] Methods: NF96.2 and NF02.2 cells were treated with 5 μM LLS30 for 12 and 24 hours, and caspase-3/7 activity was detected. Results: LLS30 significantly increased caspase-3/7 activity and induced MPNST cell apoptosis in a time-dependent manner. [1] Methods: PC3, DU145, 22RV1, and CWR-R1 cells were seeded at 3×10^3 cells per well and treated with (1, 5, 10, 25, 50, 100 μM) LLS30 for 72 h; cell viability was assessed using the CellTiter-Glo assay. Results: LLS30 inhibited CRPC cell proliferation in a dose-dependent manner, with IC_{50} values of 10.4 μM for PC3, 5.3 μM for DU145, 3.3 μM for 22RV1, and 5.9 μM for CWR-R1.[2]
In vivo	Methods: An in situ tumor model was established by injecting NF96.2 cells into the sciatic nerve of nude mice. After tumor formation, LLS30 (10 mg/kg, once daily for 14 consecutive days) was administered intraperitoneally, and tumor burden was monitored using in vivo imaging. Results: In the LLS30 group, tumor bioluminescence signals were significantly reduced, tumor growth was strongly inhibited, and the formation of lung metastases was almost completely suppressed. [1] Methods: Nude mice were subcutaneously inoculated with 22RV1 cells. After tumor formation, LLS30 (30 mg/kg, daily for 2 consecutive weeks) was administered intraperitoneally, and tumor volume and body weight were monitored. Results: LLS30 significantly inhibited tumor growth, reduced the Ki-67 positivity rate by 38.8%, and caused no significant weight loss in mice, demonstrating good safety. [2]

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	1.4256 mL	7.1279 mL	14.2558 mL
5 mM	0.2851 mL	1.4256 mL	2.8512 mL
10 mM	0.1426 mL	0.7128 mL	1.4256 mL
50 mM	0.0285 mL	0.1426 mL	0.2851 mL

Please select the appropriate solvent to prepare the stock solution, according to the solubility of the product in different solvents. Please use it as soon as possible.

Note: The dilution table applies only to solid products. For liquid products, please calculate the stock solution based on the stated concentration and/or density.

Reference

Wang HC, et al. Galectin-1 Inhibition as a Strategy for Malignant Peripheral Nerve Sheath Tumor Treatment. Cells. 2025;14(7):515. Published 2025 Mar 31.

Shih TC, et al. Targeting Galectin-1 Impairs Castration-Resistant Prostate Cancer Progression and Invasion. Clin Cancer Res. 2018;24(17):4319-4331.