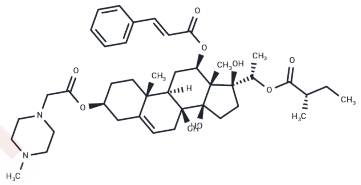
# Data Sheet (Cat.No.T86501)

TargetMol

## GLI1-IN-1

### Chemical Properties



CAS No. : 2923907-92-8

Formula: C42H60N2O9

Molecular Weight: 736.93

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 | GLI1-IN-1 (CBC-1), a GLI-1 inhibitor, exhibits superior water solubility and anticancer properties. It effectively induces apoptosis and inhibits colorectal cancer growth by targeting the Hedgehog (HH) pathway (IC 50 = 1.3 μM) [1]. |
| Targets(IC50) | Apoptosis,Hedgehog/Smoothened |
| In vitro | GLI1-IN-1 (CBC-1), in concentrations ranging from 5-40 μM over durations of 24-48 hours, exhibits anticancer activity by inhibiting cell proliferation in HT-29, SW-480, and HCT-116 cells. This inhibition is achieved through the suppression of both mRNA and protein expression within the Hedgehog (HH) signaling pathway, with IC50 values of 7.13, 15.31, and 3.33 μM respectively. Additionally, GLI1-IN-1 at the same concentrations induces apoptosis in HT-29 cells after 24 hours [1]. Apoptosis analysis for the HT-29 cell line shows an increase in apoptotic cell numbers as the concentration increases after 24 hours of incubation. RT-PCR analyses indicate a reduction in mRNA expression levels of SHH, SMO, GLI1, and PTCH with increasing concentration and incubation time (24 and 48 hours). There is also a significant decrease in the mRNA expression of the apoptosis-related factor BCL-2 and an increase in the pro-apoptotic factor BAX. Western Blot analysis further demonstrates a concentration-dependent decrease in the protein expression of SHH, SMO, and GLI1 after 24 hours of incubation at concentrations of 5, 10, 20, and 40 μM. |
| In vivo | GLI1-IN-1 (CBC-1) at a dosage of 50 mg/kg administered via intraperitoneal injection once daily for 16 days effectively inhibited tumor growth in a BALB/c/nu/nu nude mice xenograft model, achieving a tumor inhibition rate of 68% [1]. The treatment notably reduced the size and weight of HT29 tumor xenografts and decreased GLI-1 protein expression. |

Preparing Stock Solutions

| | 1mg | 5mg | 10mg |
|---|---|---|---|
| 1 mM | 1.357 mL | 6.7849 mL | 13.5698 mL |
| 5 mM | 0.2714 mL | 1.357 mL | 2.714 mL |
| 10 mM | 0.1357 mL | 0.6785 mL | 1.357 mL |
| 50 mM | 0.0271 mL | 0.1357 mL | 0.2714 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.