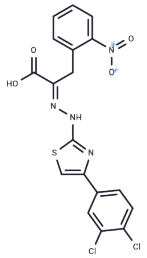
# Data Sheet (Cat.No.T2665)

TargetMol

## 4EGI-1

### Chemical Properties



CAS No. : 315706-13-9

Formula: C18H12Cl2N4O4S

Molecular Weight: 451.28

Appearance: no data available

Storage: store at low temperature
Powder: -20°C for 3 years | In solvent: -80°C for 1 year

### Biological Description

| | |
|---|---|
| Description | 4EGI-1, a competitive eIF4E/eIF4 g interaction inhibitor, binds to eIF4E(KD=25 μM). |
| Targets(IC50) | Apoptosis,Autophagy,PERK |
| In vivo | In Jurkat cells, 4EGI-1 promotes apoptosis. It effectively inhibits cell growth in A549 lung cancer cells (IC50=6 μM). In human lung cancer cells, 4EGI-1 enhances TRAIL-induced apoptosis by inducing DR5 and downregulating c-FLIP, thereby inhibiting cap-dependent protein translation. |
| Cell Research | Cell viability is measured by treatment of Jurkat cells with compound for 24 h and by determination of intracellular ATP using the CellTiterGlo assay. For measurement of apoptotic DNA fragmentation, cells are treated for 24 h with 60 μM EGI-1 or 6.65 μM camptothecin in the presence or absence of 100 mM zVAD-FMK, a broad-spectrum caspase inhibitor. After fixation and staining with PI, cellular DNA content is determined by FACS analysis in a FACS Calibur machine. Nuclear morphology after 24 h EG1-1 treatment is visualized by staining of cells with Hoechst dye and ?uorescence microscopy. For the A549 lung cancer cells, cell growth in the presence of 4EGI-1 is determined using the SRB staining method.(Only for Reference) |

### Solubility Information

| | |
|---|---|
| Solubility | DMSO: 100 mg/mL (221.59 mM),Sonication is recommended.<br>(< 1 mg/ml refers to the product slightly soluble or insoluble) |

Preparing Stock Solutions

| | 1mg | 5mg | 10mg |
|---|---|---|---|
| 1 mM | 2.2159 mL | 11.0796 mL | 22.1592 mL |
| 5 mM | 0.4432 mL | 2.2159 mL | 4.4318 mL |
| 10 mM | 0.2216 mL | 1.108 mL | 2.2159 mL |
| 50 mM | 0.0443 mL | 0.2216 mL | 0.4432 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.

Reference

Moerke NJ, et al. Cell. 2007, 128(2), 257-267.
Berthier A, Gheeraert C, Johanns M, et al.The Molecular Circadian Clock Is a Target of Anti-cancer Translation Inhibitors.Journal of Biological Rhythms.2023: 07487304231202561.
Fan S, et al. Neoplasia. 2010, 12(4), 346-356.
Willimott S, et al. Clin Cancer Res. 2013, 19(12), 3212-3223.