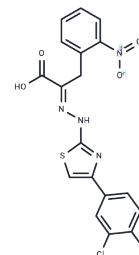


4EGI-1

Chemical Properties

CAS No. :	315706-13-9
Formula:	C ₁₈ H ₁₂ Cl ₂ N ₄ O ₄ S
Molecular Weight:	451.28
Storage:	Store at low temperature Powder: -20°C for 3 years In solvent: -80°C for 1 year <small>Actual storage temperature shall be subject to the COA.</small>



Biological Description

Description	4EGI-1, a competitive eIF4E/eIF4g 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 (IC ₅₀ =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 EGI-1 treatment is visualized by staining of cells with Hoechst dye and fluorescence 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. (< 1 mg/ml refers to the product slightly soluble or insoluble)
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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.

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

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.

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