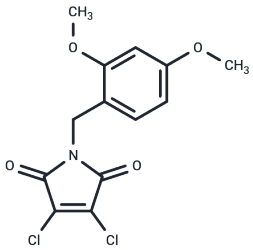
Data Sheet (Cat.No.T40419)

TargetMol

IRES-C11

Chemical Properties



CAS No. : 342416-30-2

Formula: C13H11Cl2NO4

Molecular Weight: 316.14

Storage: Keep away from direct sunlight,Store at low temperature
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	IRES-C11 is a specific inhibitor of translation that targets the internal ribosome entry site (IRES) of the c-MYC gene. It functions by blocking the interaction between heterogeneous nuclear ribonucleoprotein A1, a trans-acting factor required for c-MYC IRES activity, and its corresponding IRES. Notably, IRES-C11 does not inhibit the IRES activity of BAG-1, XIAP, and p53.
Targets(IC50)	c-Myc
In vitro	IRES-C11 (50 nM) significantly inhibits both cyclin D1 and c-MYC IRES activity. IRES-C11 treatment induces a significant shift in both cyclin D1 and c-MYC mRNA to monosomal/nonribosomal fractions, whereas actin mRNA distribution is unaffected. IRES-C11 inhibits both cyclin D1 and c-MYC IRES-mediated mRNA translation, leading to reductions in protein levels. Mechanistic studies with IRES-C11 reveal the binding of the inhibitors within the UP1 fragment of heterogeneous nuclear ribonucleoprotein A1.[1]

Solubility Information

Solubility	DMSO: 225 mg/mL (711.71 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	3.1632 mL	15.8158 mL	31.6316 mL
5 mM	0.6326 mL	3.1632 mL	6.3263 mL
10 mM	0.3163 mL	1.5816 mL	3.1632 mL
50 mM	0.0633 mL	0.3163 mL	0.6326 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

Brent Holmes, et al. Mechanistic Target of Rapamycin (mTOR) Inhibition Synergizes with Reduced Internal Ribosome Entry Site (IRES)-mediated Translation of Cyclin D1 and c-MYC mRNAs to Treat Glioblastoma. J Biol Chem. 2016 Jul 1;291(27):14146-14159.

Y Shi, et al. Therapeutic potential of targeting IRES-dependent c-myc translation in multiple myeloma cells during ER stress. Oncogene. 2016 Feb 25;35(8):1015-24.

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