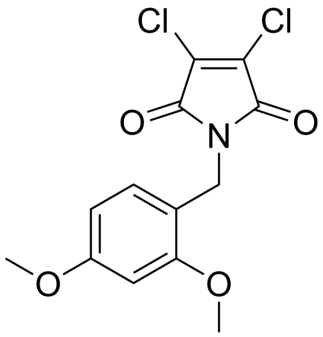
# IRES-C11

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|---|---|---|---|
| **Cat. No.:** | HY-124811 | | |
| **CAS No.:** | 342416-30-2 | | |
| **Molecular Formula:** | $C_{13}H_{11}Cl_2NO_4$ | | |
| **Molecular Weight:** | 316.14 | | |
| **Target:** | c-Myc | | |
| **Pathway:** | Apoptosis | | |
| **Storage:** | Powder | -20°C | 3 years |
| | In solvent | -80°C | 6 months |
| | | -20°C | 1 month |

## SOLVENT & SOLUBILITY

**In Vitro**

DMSO : 250 mg/mL (790.79 mM; Need ultrasonic)

| Preparing Stock Solutions | Mass / Solvent / Concentration | 1 mg | 5 mg | 10 mg |
|---|---|---|---|---|
| | 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 |

Please refer to the solubility information to select the appropriate solvent.

## BIOLOGICAL ACTIVITY

**Description**

IRES-C11 is a spectfic c-MYC internal ribosome entry site (IRES) translation inhibitor. IRES-C11 blocks the interaction of a requisite c-MYC IRES trans-acting factor, heterogeneous nuclear ribonucleoprotein A1, with its IRES. IRES-C11 does not inhibits BAG-1, XIAP and p53 IRESes[1][2].

**In Vitro**

IRES-C11 blocks cyclin D1 IRES-dependent initiation and demonstrates synergistic anti-glioblastoma properties when combined with the mechanistic target of mTOR PP242[1].

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 binding of the inhibitors within the UP1 fragment of heterogeneous nuclear ribonucleoprotein A1.

MCE has not independently confirmed the accuracy of these methods. They are for reference only.

## REFERENCES

[1]. 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.

[2]. 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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