Web: www.taiclone.com
Tel: +886-2-2735-9682
Email: order@taiclone.com

4E1RCat

Catalog No: tcsc3172

Available Sizes

Size: 5mg

Size: 10mg

Size: 50mg

Specifications

CAS No:
328998-25-0

Formula:
$C_{28}H_{18}N_2O_6$

Pathway:
Cell Cycle/DNA Damage

Target:
Eukaryotic Initiation Factor (eIF)

Purity / Grade:
>98%

Solubility:
DMSO : 5.4 mg/mL (11.29 mM; Need warming)

Observed Molecular Weight:
478.45

Product Description

4E1RCat is an inhibitor of cap-dependent translation, and inhibits **eIF4E:eIF4GI** interaction, with an **IC_{50}** an of ~4 μM.

IC50 & Target: IC50: ~4 μM (eIF4E/eIF4G)[1]

In Vitro:

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4E1RCat is an inhibitor of eIF4E:eIF4GI interaction, with an IC_{50} an of ~4 μM. 4E1RCat binding to eIF4E also interferes with eIF4G and 4E-BP binding. 4E1RCat inhibits ribosome recruitment to mRNA in a cap-dependent manner[1]. 4E1RCat blocks the capped mRNA translation, and the translation is activated by CDK1/CYCB1. Nearly all new protein synthesis in both mitosis and interphase is cap-dependent and -sensitive to 4E1RCat treatment, in HeLa and U2OS cells[2].

In Vivo: 4E1RCat (15 mg/kg, i.p.) affacts chemosensitivity of $Pten^{+/-}$Eμ-Myc tumors in mice. 4E1RCat (15 mg/kg, i.p.) sensitizes $Pten^{+/-}$Eμ-Myc and $Tsc2^{+/-}$Eμ-Myc lymphomas to the cytotoxic effects of doxorubicin (Dxr), and 4E1RCat targets translation in mice[1].