

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

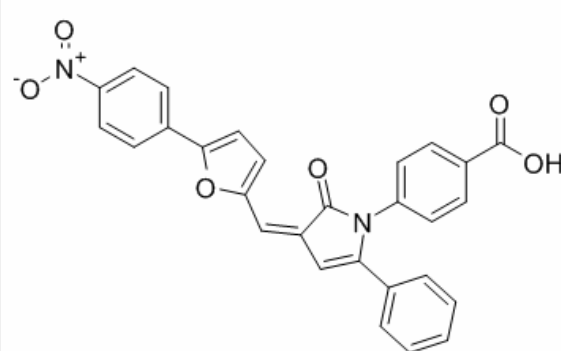
4E1RCat is an inhibitor of cap-dependent translation, and inhibits **eIF4E:eIF4GI** interaction, with an **IC₅₀** an of ~4 μM.

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

In Vitro:

4E1RCat is an inhibitor of eIF4E:eIF4G interaction, with an IC_{50} of $\sim 4 \mu M$. 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.) affects chemosensitivity of Pten^{+/-}E μ -Myc tumors in mice. 4E1RCat (15 mg/kg, i.p.) sensitizes Pten^{+/-}E μ -Myc and Tsc2^{+/-}E μ -Myc lymphomas to the cytotoxic effects of doxorubicin (Dxr), and 4E1RCat targets translation in mice^[1].



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