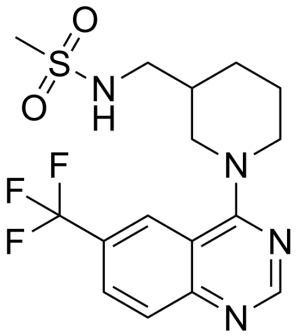
# SRI-37330

| | |
|---|---|
| **Cat. No.:** | HY-142114 |
| **CAS No.:** | 2322245-42-9 |
| **Molecular Formula:** | $C_{16}H_{19}F_3N_4O_2S$ |
| **Molecular Weight:** | 388.41 |
| **Target:** | Others |
| **Pathway:** | Others |
| **Storage:** | 4°C, stored under nitrogen<br>* In solvent : -80°C, 6 months; -20°C, 1 month (stored under nitrogen) |



## SOLVENT & SOLUBILITY

**In Vitro**

DMSO : 100 mg/mL (257.46 mM; Need ultrasonic)

| Preparing Stock Solutions | Solvent / Mass / Concentration | 1 mg | 5 mg | 10 mg |
|---|---|---|---|---|
| | 1 mM | 2.5746 mL | 12.8730 mL | 25.7460 mL |
| | 5 mM | 0.5149 mL | 2.5746 mL | 5.1492 mL |
| | 10 mM | 0.2575 mL | 1.2873 mL | 2.5746 mL |

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

**In Vivo**

1. Add each solvent one by one: 10% DMSO >> 40% PEG300 >> 5% Tween-80 >> 45% saline
   Solubility: ≥ 5 mg/mL (12.87 mM); Clear solution
2. Add each solvent one by one: 10% DMSO >> 90% corn oil
   Solubility: ≥ 5 mg/mL (12.87 mM); Clear solution

## BIOLOGICAL ACTIVITY

**Description**

SRI-37330 is an orally active TXNIP inhibitor. SRI-37330 decreases glucagon secretion and action and blocks hepatic glucose output. SRI-37330 can be used in the research of obesity and diabetes[1].

**$IC_{50}$ & Target**

TXNIP[1]

**In Vitro**

SRI-37330 (1 μM, 24 h) inhibits the activity of the human TXNIP promoter in INS-1 cells[1].
SRI-37330 (1 μM, 24 h) inhibits Mrna and protein levels of TXNIP in INS-1 cells[1].
SRI-37330 (5 μM, 24 h) inhibits polymerase II (Pol II) binding to the E-box motif region of the TXNIP promoter[1].
SRI-37330 (5 μM, 24 h) lowers glucagon secretion in TC1-6 cells[1].
SRI-37330 (0-5 μM, 24 h) inhibits glucagon-induced glucose output from primary hepatocytes[1].
MCE has not independently confirmed the accuracy of these methods. They are for reference only.

RT-PCR[1]

| | |
|---|---|
| Cell Line: | INS-1 cells |
| Concentration: | 1 μM |
| Incubation Time: | 24 h |
| Result: | Inhibited endogenous TXNIP mRNA expression with an $IC_{50}$ of 0.64 μM. |

**In Vivo**

SRI-37330 (100 mg/kg, p.o., in drinking water, 3 weeks) decreases glucagon secretion and action and blocks hepatic glucose output[1].
SRI-37330 (100 mg/kg, p.o., in drinking water, 3 weeks) is well tolerated in male C57BL/6J mice[1].
SRI-37330 (100 mg/kg, p.o., in drinking water, 3 weeks) reverses obesity- and STZ-induced diabetes and hepatic steatosis in mice[1].
MCE has not independently confirmed the accuracy of these methods. They are for reference only.

| | |
|---|---|
| Animal Model: | C57BL/6J mice[1] |
| Dosage: | 100 mg/kg |
| Administration: | Oral administration (p.o.), in drinking water, 3 weeks. |
| Result: | Lowered serum glucagon levels, inhibited hepatic glucose production and improved glucose homeostasis in mice. |

## REFERENCES

[1]. Thielen LA, et al. Identification of an Anti-diabetic, Orally Available Small Molecule that Regulates TXNIP Expression and Glucagon Action. Cell Metab. 2020 Sep 1;32(3):353-365.e8.



Tel: 609-228-6898 Fax: 609-228-5909 E-mail: tech@MedChemExpress.com
Address: 1 Deer Park Dr, Suite Q, Monmouth Junction, NJ 08852, USA