

Product data sheet



MedKoo Cat#: 463768 Name: SRI-37330 HCl CAS#: 2322245-49-6 (HCl) Chemical Formula: C ₁₆ H ₂₀ ClF ₃ N ₄ O ₂ S Molecular Weight: 424.8672	
Product supplied as:	Powder
Purity (by HPLC):	≥ 98%
Shipping conditions	Ambient temperature
Storage conditions:	Powder: -20°C 3 years; 4°C 2 years. In solvent: -80°C 3 months; -20°C 2 weeks.

1. Product description:

SRI-37330 hydrochloride is a novel inhibitor of TXNIP expression, decreasing glucagon secretion and action and blocking hepatic glucose output, reversing obesity- and STZ-induced diabetes and hepatic steatosis.

2. CoA, QC data, SDS, and handling instruction

SDS and handling instruction, CoA with copies of QC data (NMR, HPLC and MS analytical spectra) can be downloaded from the product web page under “QC And Documents” section. Note: copies of analytical spectra may not be available if the product is being supplied by MedKoo partners. Whether the product was made by MedKoo or provided by its partners, the quality is 100% guaranteed.

3. Solubility data

Solvent	Max Conc. mg/mL	Max Conc. mM
DMSO	62.5	147.10

4. Stock solution preparation table:

Concentration / Solvent Volume / Mass	1 mg	5 mg	10 mg
1 mM	2.35 mL	11.77 mL	23.54 mL
5 mM	0.47 mL	2.35 mL	4.71 mL
10 mM	0.24 mL	1.18 mL	2.35 mL
50 mM	0.05 mL	0.24 mL	0.47 mL

5. Molarity Calculator, Reconstitution Calculator, Dilution Calculator

Please refer the product web page under section of “Calculator”

6. Recommended literature which reported protocols for in vitro and in vivo study

In vitro study

1. Thielen LA, Chen J, Jing G, Moukha-Chafiq O, Xu G, Jo S, Grayson TB, Lu B, Li P, Augelli-Szafran CE, Suto MJ, Kanke M, Sethupathy P, Kim JK, Shalev A. 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. doi: 10.1016/j.cmet.2020.07.002. Epub 2020 Jul 28. PMID: 32726606; PMCID: PMC7501995.

In vivo study

1. Thielen LA, Chen J, Jing G, Moukha-Chafiq O, Xu G, Jo S, Grayson TB, Lu B, Li P, Augelli-Szafran CE, Suto MJ, Kanke M, Sethupathy P, Kim JK, Shalev A. 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. doi: 10.1016/j.cmet.2020.07.002. Epub 2020 Jul 28. PMID: 32726606; PMCID: PMC7501995.

7. Bioactivity

Biological target:

SRI-37330 hydrochloride is an orally bioavailable thioredoxin-interacting protein (TXNIP) inhibitor.

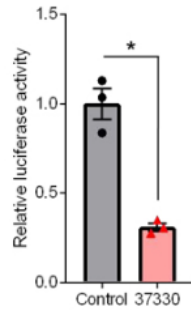
In vitro activity

Transient transfection experiments showed that SRI-37330 inhibited the activity of the human TXNIP promoter in INS-1 cells by ~70% (Fig. 1b), consistent with inhibition at the transcriptional level. SRI-37330 also inhibited endogenous TXNIP mRNA expression

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as shown by 7-point dose-response qRT-PCR assays (Fig. 1c), revealing an IC₅₀ of 0.64 μ M and no cytotoxicity (Supplemental Table S1a). Similarly, SRI-37330 also inhibited TXNIP protein levels in a dose-dependent manner (Fig. 1d).



Reference: Cell Metab. 2020 Sep 1;32(3):353-365.e8. <https://pubmed.ncbi.nlm.nih.gov/32726606/>

In vivo activity

Intraperitoneal glucose tolerance tests (GTTs) revealed a consistently and significantly improved glucose tolerance in response to SRI-37330 administration (Fig. 3c), whereas insulin tolerance tests (ITTs) remained unaltered (Fig. 3d). Fasting blood glucose was slightly, but significantly lower in SRI-37330-treated mice (Fig. 3e). Notably, while fasting serum insulin levels were unchanged in SRI-37330-treated mice as compared to controls (Fig. 3f), fasting serum glucagon levels were lower (Fig. 3g), suggesting that SRI-37330 may also affect glucagon secretion from pancreatic alpha cells.

Reference: Cell Metab. 2020 Sep 1;32(3):353-365.e8. <https://pubmed.ncbi.nlm.nih.gov/32726606/>

Note: The information listed here was extracted from literature. MedKoo has not independently retested and confirmed the accuracy of these methods. Customer should use it just for a reference only.