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Data Sheet

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Product Name	:	TIX100
Cat. No.	:	PC-24044
CAS No.	:	2322245-42-9
Molecular Formula	:	C ₁₆ H ₁₉ F ₃ N ₄ O ₂ S
Molecular Weight	:	388.41
Target	:	Other Targets
Solubility	:	10 mM in DMSO



Biological Activity

SRI-37330 (TIX100) is an orally available small molecule that regulates TXNIP expression, inhibits endogenous TXNIP mRNA expression (IC50=0.64 uM, INS-1 cells qRT-PCR assays).

SRI-37330 inhibited the activity of the human TXNIP promoter in INS-1 cells by 70% and no cytotoxicity, significantly inhibited TXNIP expression in rat INS-1 cells, primary mouse islets, and isolated human islets.

SRI-37330 significantly changed TXNIP-associated genes, upregulated CTGF, BCL2L1, IGF1R and MAFA, downregualted NLRP1 and MLXIPL, in INS-1 cells.

SRI-37330 effectively inhibited polymerase II (Pol II) binding to the E-box motif region of the TXNIP promoter, but not to an upstream TXNIP promoter region or to an established Pol II binding site in the insulin receptor substrate 2 (IRS2). SRI-37330 lowers serum glucagon levels, inhibits hepatic glucose production and improves glucose homeostasis in mice (100 mg/kg/day in the drinking water).

References

Lance A Thielen, et al. Cell Metab. 2020 Sep 1;32(3):353-365.e8.

Jing G, et al. Front Endocrinol (Lausanne). 2024 Oct 4;15:1476444.

Caution: Product has not been fully validated for medical applications. Lab Use Only! E-mail: tech@probechem.com