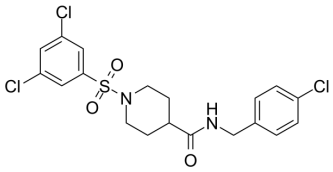
SLC13A5-IN-1

Cat. No.:	HY-125990
CAS No.:	2227548-95-8
Molecular Formula:	$C_{19}H_{19}Cl_3N_2O_3S$
Molecular Weight:	461.79
Target:	Sodium Channel
Pathway:	Membrane Transporter/Ion Channel
Storage:	Powder -20°C 3 years 4°C 2 years In solvent -80°C 6 months -20°C 1 month



SOLVENT & SOLUBILITY

In Vitro

DMSO : 12.5 mg/mL (27.07 mM; ultrasonic and warming and heat to 60°C)

Preparing Stock Solutions	Solvent / Mass / Concentration	1 mg	5 mg	10 mg
	1 mM	2.1655 mL	10.8274 mL	21.6549 mL
	5 mM	0.4331 mL	2.1655 mL	4.3310 mL
	10 mM	0.2165 mL	1.0827 mL	2.1655 mL

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

BIOLOGICAL ACTIVITY

Description

SLC13A5-IN-1 is a selective sodium-citrate co-transporter (SLC13A5) inhibitor. SLC13A5-IN-1 completely blocks the uptake of ^{14}C-citrate with an IC_{50} value of 0.022 μM in HepG2 cells. SLC13A5-IN-1 has the potential for the treatment of metabolic and/or cardiovascular diseases. SLC13A5-IN-1 is extracted from patent WO2018104220A1, Compound I-5[1].

IC_{50} & Target

IC50: 0.022 μM (HepG2/^{14}C-Citrate Uptake Assay); 0.056 μM (recombinant hSLC3A5/^{14}C-Citrate Uptake Assay)[1]

In Vitro

SLC13A5-IN-1 exhibits an IC_{50} of 0.022 μM in HepG2/^{14}C-Citrate Uptake Assay. HepG2 cells endogenously express hSLC13A5 transporter which is responsible for the uptake of citrate into these cells. Uptake of ^{14}C-citrate can be completely blocked by SLC13A5-IN-1 and the signal can be competed with unlabelled citrate. T[1].

SLC13A5-IN-1 exhibits an IC_{50} of 0.056 μM in recombinant hSLC3A5/^{14}C-Citrate Uptake Assay[1].

SLC13A5-IN-1 exhibits an IC_{50} of 100 μM in recombinant Human GlyT2/3H-Glycine Uptake Assay. The human embryonic kidney 293 cells are used that stably over-express the human GlyT2 receptor which is responsible for the uptake of glycine into these cells. Uptake of 3H-glycine can be completely blocked by SLC13A5-IN-1[1].

MCE has not independently confirmed the accuracy of these methods. They are for reference only.

REFERENCES

[1]. Joerg Kley, et al. Sulfonamides as inhibitors of the uptake of extracellular citrate. Patent WO2018104220A1

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