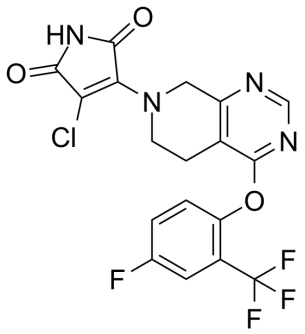
TRPC5-IN-4

Cat. No.:	HY-144429
CAS No.:	2762315-39-7
Molecular Formula:	$C_{18}H_{11}ClF_4N_4O_3$
Molecular Weight:	442.75
Target:	TRP Channel
Pathway:	Membrane Transporter/Ion Channel; Neuronal Signaling
Storage:	Please store the product under the recommended conditions in the Certificate of Analysis.



BIOLOGICAL ACTIVITY

Description	TRPC5-IN-4 is potent and safe TRPC inhibitor with IC_{50} value of 14.07 nM and 65 nM for TRPC5 and TRPC4, respectively. TRPC5-IN-4 shows no damage on the cellular component of liver and kidney. TRPC5-IN-4 can be used for the research of chronic kidney disease (CKD)[1].

IC_{50} & Target	TRPC5	TRPC4
	14.07 nM (IC_{50})	65 nM (IC_{50})

In Vitro

TRPC5-IN-4 (compound 16 g) (0.003-3 μM; 0-1000 seconds) significantly changes intracellular Ca^{2+} concentration in TRPC4- and TRPC5-HEK293 cells in a dose-dependent manner, and shows very weak inhibitory activity on the TRPC3 channel, no inhibitory effect on TRPC6 and TRPC7 channels[1].

TRPC5-IN-4 (1 and 10 μM; 24 hours) does not reduce the liver and kidney cells viability[1].

TRPC5-IN-4 (0.1, 0.3, 1, 3 μM; 30 minutes) concentration-dependently reduces the PS-induced podocyte rearrangement in MPC5 cells[1].

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

Cell Viability Assay

Cell Line:	Primary cultured hepatocytes and MPC5 cells[1]
Concentration:	1 and 10 μM
Incubation Time:	24 hours
Result:	Did not reduce the cell viability, suggesting that TRPC5-IN-4 was unlikely to damage the cellular component of liver and kidney.

REFERENCES

[1]. Zhang Z, Chen L, Tian H, et al. Discovery of pyrroledione analogs as potent transient receptor potential canonical channel 5 inhibitors. Bioorg Med Chem Lett. 2022;61:128612.

Caution: Product has not been fully validated for medical applications. For research use only.

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