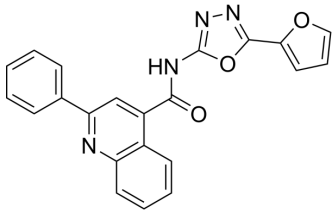
STX-0119

Cat. No.:	HY-103692
CAS No.:	851095-32-4
Molecular Formula:	$C_{22}H_{14}N_4O_3$
Molecular Weight:	382.37
Target:	STAT
Pathway:	JAK/STAT Signaling; Stem Cell/Wnt
Storage:	4°C, protect from light * In solvent : -80°C, 6 months; -20°C, 1 month (protect from light)



SOLVENT & SOLUBILITY

In Vitro

DMSO : 13.33 mg/mL (34.86 mM; ultrasonic and warming and heat to 60°C)

Preparing Stock Solutions	Solvent / Mass / Concentration	1 mg	5 mg	10 mg
	1 mM	2.6153 mL	13.0763 mL	26.1527 mL
	5 mM	0.5231 mL	2.6153 mL	5.2305 mL
	10 mM	0.2615 mL	1.3076 mL	2.6153 mL

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

BIOLOGICAL ACTIVITY

Description

STX-0119 is a selective, orally active STAT3 dimerization inhibitor. STX-0119 inhibits STAT3 transcription with an IC_{50} of 74 μM[1].

IC_{50} & Target

STAT3
74 μM (IC_{50}, STAT3 transcription)

In Vitro

STX-0119 (10-50 μM; 24 h) inhibits STAT3 dimerization through a direct interaction with the STAT3 protein and not via the modulation of upstream regulators such as JAK in HEK293 and MDA-MB-468 cells[1].
STX-0119 (10-50 μM; 24 h) reduces the expression of STAT3 target proteins[1].
MCE has not independently confirmed the accuracy of these methods. They are for reference only.

Western Blot Analysis[1]

Cell Line:	MDA-MB-468 cells
Concentration:	10, 20 and 50 μM
Incubation Time:	24 h

Result:	Reduced the expression of STAT3 target proteins, namely, c-myc, cyclin D1, and survivin, in a concentration-dependent manner. Did not suppress the expression of those STAT3-regulated oncoproteins.

In Vivo

STX-0119 (160 mg/kg; oral gavage; daily for 4 days) inhibits SCC-3 tumor growth in mice[1].
The plasma concentration of STX-0119 (160 mg/kg; oral gavage) is maintained at >100 μg/mL (>260 μM), even at 8 h after administration[1].
MCE has not independently confirmed the accuracy of these methods. They are for reference only.

Animal Model:	Male BALB/cA-v/v nude mice, SCC-3 lymphoma xenograft model[1]
Dosage:	160 mg/kg
Administration:	Oral gavage, daily for 4 days
Result:	Suppressed the growth of SCC-3 cells significantly on the fourth day.

REFERENCES

[1]. Matsuno K, et al. Identification of a New Series of STAT3 Inhibitors by Virtual Screening. ACS Med Chem Lett. 2010 Jul 13;1(8):371-5.

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