XPC-6444

Cat. No.: HY-128772

CAS No.: 2230144-21-3

Molecular Formula: $C_{22}H_{25}F_3N_4O_2S_2$

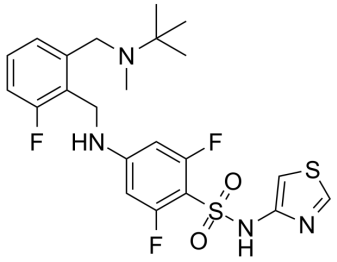
Molecular Weight: 498.58

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 : 125 mg/mL (250.71 mM; Need ultrasonic)

Preparing Stock Solutions

Solvent / Mass / Concentration	1 mg	5 mg	10 mg
1 mM	2.0057 mL	10.0285 mL	20.0570 mL
5 mM	0.4011 mL	2.0057 mL	4.0114 mL
10 mM	0.2006 mL	1.0028 mL	2.0057 mL

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

In Vivo

1. Add each solvent one by one: 10% DMSO >> 40% PEG300 >> 5% Tween-80 >> 45% saline
   Solubility: ≥ 2.08 mg/mL (4.17 mM); Clear solution
2. Add each solvent one by one: 10% DMSO >> 90% corn oil
   Solubility: ≥ 2.08 mg/mL (4.17 mM); Clear solution

BIOLOGICAL ACTIVITY

Description

XPC-6444 is a highly potent, isoform-selective, and CNS-penetrant $Na_V1.6$ inhibitor (IC_{50}=41 nM for $hNa_V1.6$). XPC-6444 also displays potent block of $Na_V1.2$ (IC_{50}=125 nM). XPC-6444 shows anticonvulsant activity[1].

IC_{50} & Target

IC50: 41 nM ($hNa_V1.6$), 125 nM ($hNa_V1.2$)[1]

In Vitro

XPC-6444 shows high selectivity over $Na_V1.1$ and $Na_V1.5$[1].

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

In Vivo

XPC-6444 exhibits good metabolic stability in human liver microsomes and hepatocytes, and low potential for MDR1 mediated efflux[1].

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

REFERENCES

[1]. Focken T, et al. Identification of CNS-Penetrant Aryl Sulfonamides as Isoform-Selective NaV1.6 Inhibitors with Efficacy in Mouse Models of Epilepsy. J Med Chem. 2019 Oct 3.

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