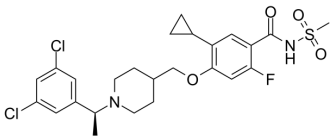
GDC-0310

Cat. No.:	HY-139081
CAS No.:	1788063-52-4
Molecular Formula:	$C_{25}H_{29}Cl_2FN_2O_4S$
Molecular Weight:	543.48
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 : 4 mg/mL (7.36 mM; ultrasonic and warming and heat to 60°C)

Preparing Stock Solutions	Mass / Solvent / Concentration	1 mg	5 mg	10 mg
	1 mM	1.8400 mL	9.2000 mL	18.3999 mL
	5 mM	0.3680 mL	1.8400 mL	3.6800 mL
	10 mM	---	---	---

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

BIOLOGICAL ACTIVITY

Description

GDC-0310 is a selective acyl-sulfonamide $Na_V1.7$ inhibitor, with an IC_{50} of 0.6 nM for $hNa_V1.7$[1].

IC_{50} & Target

$hNa_V1.4$ 3.4 nM (IC_{50})	$hNa_V1.2$ 38 nM (IC_{50})	$hNa_V1.6$ 198 nM (IC_{50})	$hNa_V1.1$ 202 nM (IC_{50})
$hNa_V1.5$ 551 nM (IC_{50})	$Na_V1.7$ 0.6 nM (IC_{50})		

In Vitro

GDC-0310 exhibits an EC_{50} of 1.1 μM in vivo and a K_i of 1.8 nM for $Na_V1.7$[1].

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

In Vivo

GDC-0310 shows substantially improved Na_V selectivity and ADME properties[1].

GDC-0310 exhibits t1/2 values of 5 h, 46 h and 4.4 h in rat (5 mg/kg, iv), dog (1 mg/kg, iv) and cynomolgus monkeys (2 mg/kg, iv), respectively[1].

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

REFERENCES

[1]. Brian S Safina, et al. Discovery of Acyl-sulfonamide Na v 1.7 Inhibitors GDC-0276 and GDC-0310. J Med Chem. 2021 Mar 25;64(6):2953-2966.

[2]. Lei Xu, et al. Voltage-gated sodium channels: structures, functions, and molecular modeling. Drug Discov Today. 2019 Jul;24(7):1389-1397.

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