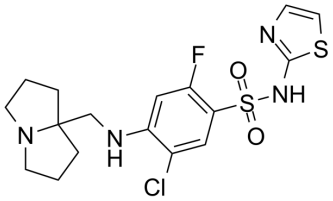
Nav1.7-IN-3

Cat. No.:	HY-101789
CAS No.:	1788872-06-9
Molecular Formula:	$C_{17}H_{20}ClFN_4O_2S_2$
Molecular Weight:	430.95
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 : < 1 mg/mL (ultrasonic;warming;heat to 60°C) (insoluble or slightly soluble)

BIOLOGICAL ACTIVITY

Description	Nav1.7-IN-3 is a selective, orally bioavailable voltage-gated sodium channel Nav1.7 inhibitor with an IC_{50} of 8 nM. Pain relief. Limited CNS penetration[1].
IC_{50} & Target	IC50: 8 nM (Nav1.7)[1]
In Vivo	Nav1.7-IN-3 (compound 5) shows excellent potency, selectivity, behavioral efficacy in a rodent pain model (30 mg/kg, oral, 35 minutes), and efficacy in a mouse itch model (30 mg/kg, oral, 30 minutes)[1]. MCE has not independently confirmed the accuracy of these methods. They are for reference only.

Animal Model:	C57BL/6 male mice (n=8/group, 25-30g)
Dosage:	1, 3, and 10 mg/kg
Administration:	Oral (0-35 mintues)
Result:	Nav1.7-IN-3 demonstrates statistically significant, dose-dependent reversal of these effects in the acute phase of the experiment (0-5 min period post formalin injection) and the tonic phase of the experiment (20-35 min period post formalin injection) with full reversal of formalin effects in the tonic phase[1]

REFERENCES

[1]. Roecker AJ, et al. Discovery of selective, orally bioavailable, N-linked arylsulfonamide Nav1.7 inhibitors with pain efficacy in mice. Bioorg Med Chem Lett. 2017 May 15;27(10):2087-2093.

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

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