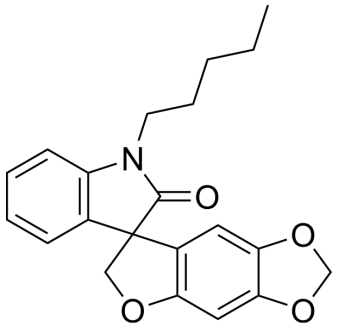
XEN907

Cat. No.:	HY-19958
CAS No.:	912656-34-9
Molecular Formula:	$C_{21}H_{21}NO_4$
Molecular Weight:	351.4
Target:	Sodium Channel
Pathway:	Membrane Transporter/Ion Channel
Storage:	Powder -20°C 3 years 4°C 2 years In solvent -80°C 2 years -20°C 1 year



SOLVENT & SOLUBILITY

In Vitro

DMSO : 100 mg/mL (284.58 mM; Need ultrasonic)

Preparing Stock Solutions	Solvent / Mass / Concentration	1 mg	5 mg	10 mg
	1 mM	2.8458 mL	14.2288 mL	28.4576 mL
	5 mM	0.5692 mL	2.8458 mL	5.6915 mL
	10 mM	0.2846 mL	1.4229 mL	2.8458 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: ≥ 2.5 mg/mL (7.11 mM); Clear solution
2. Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline)
   Solubility: 2.5 mg/mL (7.11 mM); Suspended solution; Need ultrasonic
3. Add each solvent one by one: 10% DMSO >> 90% corn oil
   Solubility: ≥ 2.5 mg/mL (7.11 mM); Clear solution

BIOLOGICAL ACTIVITY

Description

XEN907 is a potent and spirooxindole blocker of $Na_V1.7$, with an IC_{50} of 3 nM. XEN907 also inhibits CYP3A4 in a recombinant human enzyme assay. XEN907 can be used for the research of pain[1][2].

IC_{50} & Target

Nav1.7

In Vitro

XEN907 is not cytotoxic in HepG2 cells (% viable after 16 h: >99%)[1].
XEN907 shows moderate hepatocyte stability (% remaining after 2 h: rat 21%; human 34%; dog 46%) across species[1].

	MCE has not independently confirmed the accuracy of these methods. They are for reference only.
In Vivo	XEN907 (10 mg/kg; p.o.) exhibits moderate oral bioavailability (13 %), C_{max} (35 ng/mL), and AUC_{last} (143 h•ng/mL) in rats[1]. XEN907 (3 mg/kg; i.v.) exhibits terminal elimination half-life (2.6 h), high plasma clearance (9.4 L/h/kg), and large volumes of distribution (35.0 L/kg) in rats[1]. MCE has not independently confirmed the accuracy of these methods. They are for reference only.

REFERENCES

[1]. Chowdhury S, et al. Discovery of XEN907, a spirooxindole blocker of NaV1.7 for the treatment of pain. Bioorg Med Chem Lett. 2011 Jun 15;21(12):3676-81.

[2]. Chowdhury S, et, al. Tetracyclic spirooxindole blockers of hNaV1.7: activity in vitro and in CFA-induced inflammatory pain model. Med Chem Res (2013) 22:1825–1836.

Tel: 609-228-6898 Fax: 609-228-5909 E-mail: tech@MedChemExpress.com

Address: 1 Deer Park Dr, Suite Q, Monmouth Junction, NJ 08852, USA