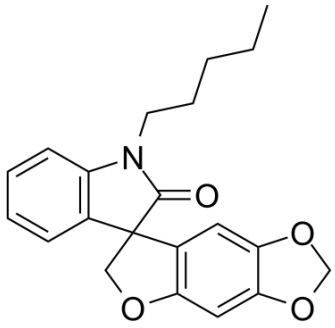
XEN907

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 6 months -20°C 1 month



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	IC50: 3 nM (NaV1.7)[1]
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.

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