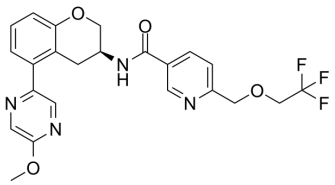
AZD-3161

Cat. No.:	HY-117714
CAS No.:	1369501-46-1
Molecular Formula:	$C_{23}H_{21}F_3N_4O_4$
Molecular Weight:	474.43
Target:	Sodium Channel
Pathway:	Membrane Transporter/Ion Channel
Storage:	Please store the product under the recommended conditions in the Certificate of Analysis.



BIOLOGICAL ACTIVITY

Description	AZD-3161 is a potent and selective blocker of $Na_V1.7$ channel, with a pIC_{50} of 7.1. AZD-3161 can be used for the research of neuropathic and inflammatory pain[1][2].
IC_{50} & Target	pIC50: 7.1 ($NaV1.7$ channel)[1]
In Vitro	AZD-3161 (compound 29) is selective for $Na_V1.7$ over $Na_V1.5$ and hERG, with pIC_{50}s of 7.1, 4.9 and 4.9, respectively[1]. AZD-3161 inhibits Adenosine Transporter (AT) and Cannabinoid B1 (CB1) receptor, with IC_{50}s of 1.8 μM and 5 μM, respectively[1]. MCE has not independently confirmed the accuracy of these methods. They are for reference only.
In Vivo	AZD-3161 (16-99 μmol/kg; p.o.) displays a dose dependent antinociceptive effect in the phase 1 of the formalin model of pain in rats[1]. AZD-3161 (3 μmol/kg; i.v.) exhibits long half-life (2.2 h) and V_{ss} (4.2 L/kg)[1]. AZD-3161 (10 μmol/kg; p.o.) exhibits high oral bioavailability (44%), long half-life (4.8 h) and C_{max} (0.30 μmol/L)[1]. MCE has not independently confirmed the accuracy of these methods. They are for reference only.

REFERENCES

[1]. Kers I, et, al. Structure and activity relationship in the (S)-N-chroman-3-ylcarboxamide series of voltage-gated sodium channel blockers. Bioorg Med Chem Lett. 2012 Sep 1; 22(17): 5618-24.

[2]. Bagal SK, et, al. Recent progress in sodium channel modulators for pain. Bioorg Med Chem Lett. 2014 Aug 15; 24(16): 3690-9.

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