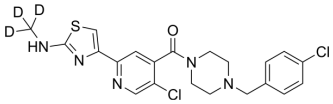
WNK-IN-11-d_3

Cat. No.:	HY-112094S
CAS No.:	2123483-49-6
Molecular Formula:	$C_{21}H_{18}D_3Cl_2N_5OS$
Molecular Weight:	465.41
Target:	Ser/Thr Protease
Pathway:	Metabolic Enzyme/Protease
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 : ≥ 100 mg/mL (214.86 mM)

* "≥" means soluble, but saturation unknown.

Preparing Stock Solutions

Solvent / Mass / Concentration	1 mg	5 mg	10 mg
1 mM	2.1486 mL	10.7432 mL	21.4864 mL
5 mM	0.4297 mL	2.1486 mL	4.2973 mL
10 mM	0.2149 mL	1.0743 mL	2.1486 mL

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

BIOLOGICAL ACTIVITY

Description

WNK-IN-11-d_3 is an orally active, selective and potent With-No-Lysine (WNK) kinase inhibitor. WNK-IN-11-d_3 is effective at regulating cardiovascular homeostasis[1].

IC_{50} & Target

WNK[1]

In Vivo

WNK-IN-11 D3 (1.5 mg/kg; p.o.) shows an improved rat PK profile, including lower clearance, improvement in absolute oral exposure, and a 2-fold improvement in oral bioavailability[1].

WNK-IN-11 D3 (30 mg/kg; p.o.) shows significant reductions in systolic blood pressure (SBP) vs untreated mice[1].

WNK-IN-11 D3 (0~100 mg/kg; p.o.) induces dose dependent diuresis, natriuresis, and kaliuresis, from 10 to 100 mg/kg[1].

WNK-IN-11 D3 shows trends toward reduction of blood pressure, stroke volume, and total peripheral resistance, while increasing heart rate. WNK-IN-11 D3 shows efficacy in rodent models of hypertension and volume overload[1].

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

Animal Model:	Sprague–Dawley rats[1]
Dosage:	1.5 mg/kg
Administration:	P.o.
Result:	Showed an improved rat PK profile, including lower clearance, improvement in absolute oral exposure, and a 2-fold improvement in oral bioavailability.

Animal Model:	FVB mice[1]
Dosage:	30 mg/kg
Administration:	P.o.
Result:	Showed significant reductions in systolic blood pressure (SBP) vs untreated mice.

Animal Model:	FVB mice[1]
Dosage:	0~100 mg/kg
Administration:	P.o.
Result:	Induced dose dependent diuresis, natriuresis, and kaliuresis, from 10 to 100 mg/kg.

REFERENCES

[1]. Yamada K, Levell J, Yoon T, et al. Optimization of Allosteric With-No-Lysine (WNK) Kinase Inhibitors and Efficacy in Rodent Hypertension Models. J Med Chem. 2017;60(16):7099-7107.

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