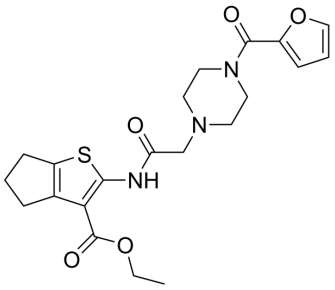
GLX351322

Cat. No.:	HY-100111
CAS No.:	835598-94-2
Molecular Formula:	$C_{21}H_{25}N_3O_5S$
Molecular Weight:	431.51
Target:	NADPH Oxidase
Pathway:	Metabolic Enzyme/Protease
Storage:	Powder -20°C 3 years In solvent -80°C 2 years -20°C 1 year



SOLVENT & SOLUBILITY

In Vitro

DMSO : 20 mg/mL (46.35 mM; Need ultrasonic)

Preparing Stock Solutions	Mass / Solvent / Concentration	1 mg	5 mg	10 mg
	1 mM	2.3174 mL	11.5872 mL	23.1744 mL
	5 mM	0.4635 mL	2.3174 mL	4.6349 mL
	10 mM	0.2317 mL	1.1587 mL	2.3174 mL

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

In Vivo

1. Add each solvent one by one: 50% PEG300 >> 50% saline
   Solubility: 25 mg/mL (57.94 mM); Suspended solution; Need ultrasonic
2. Add each solvent one by one: 10% DMSO >> 40% PEG300 >> 5% Tween-80 >> 45% saline
   Solubility: 2.08 mg/mL (4.82 mM); Suspended solution; Need ultrasonic
3. Add each solvent one by one: 10% DMSO >> 90% corn oil
   Solubility: ≥ 2.08 mg/mL (4.82 mM); Clear solution

BIOLOGICAL ACTIVITY

Description

GLX351322 is an inhibitor of NADPH oxidase 4 (Nox4), and inhibits hydrogen peroxide production from NOX4-overexpressing cells with an IC_{50} of 5 μM.

IC_{50} & Target

NOX4

In Vitro

GLX351322 is an inhibitor of NADPH oxidase 4, and inhibits hydrogen peroxide production from NOX4-overexpressing cells with an IC_{50} of 5 μM. GLX351322 shows weak activity against NOX2 in hPBMC cells (IC_{50}, 40 μM).

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

In Vivo	GLX351322 (3.8 mg/kg/day, p.o.) ameliorates HFD-induced hyperglycemia in mice[1]. MCE has not independently confirmed the accuracy of these methods. They are for reference only.

CUSTOMER VALIDATION

- Alzheimers Dement. 2020;16(Suppl. 3):e038198.
- Cell Mol Biol Lett. 2023 Mar 23;28(1):24.
- Int J Biol Macromol. 2021 Jul 23;S0141-8130(21)01587-7.
- Free Radic Biol Med. 2023 Jul 27;S0891-5849(23)00548-8.
- Free Radic Biol Med. 2022 Nov 10;193(Pt 2):595-609.

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REFERENCES

[1]. Anvari E, et al. The novel NADPH oxidase 4 inhibitor GLX351322 counteracts glucose intolerance in high-fat diet-treated C57BL/6 mice. Free Radic Res. 2015;49(11):1308-18.

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