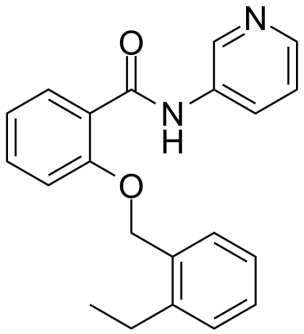
Ly93

Cat. No.:	HY-114307		
CAS No.:	1883528-69-5		
Molecular Formula:	$C_{21}H_{20}N_2O_2$		
Molecular Weight:	332.4		
Target:	Others		
Pathway:	Others		
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 : 250 mg/mL (752.11 mM; Need ultrasonic)

Preparing Stock Solutions	Solvent / Mass / Concentration	1 mg	5 mg	10 mg
	1 mM	3.0084 mL	15.0421 mL	30.0842 mL
	5 mM	0.6017 mL	3.0084 mL	6.0168 mL
	10 mM	0.3008 mL	1.5042 mL	3.0084 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: ≥ 2.08 mg/mL (6.26 mM); Clear solution
2. Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline)
   Solubility: ≥ 2.08 mg/mL (6.26 mM); Clear solution
3. Add each solvent one by one: 10% DMSO >> 90% corn oil
   Solubility: ≥ 2.08 mg/mL (6.26 mM); Clear solution

BIOLOGICAL ACTIVITY

Description

Ly93 is a selective and orally active sphingomyelin synthase 2 (SMS2) inhibitor, with an IC_{50} of 91 nM[1].

In Vivo

Ly93 (100 mg/kg, i.g. once daily for 7 days) significantly decreases the plasma SM levels of C57BL/6J mice[1].
Ly93 dose-dependently attenuates the atherosclerotic lesions in the root and the entire aorta as well as macrophage content in lesions, in apolipoprotein E gene knockout mice[1].
MCE has not independently confirmed the accuracy of these methods. They are for reference only.

Animal Model:	C57BL/6J mice[1].
Dosage:	100 mg/kg.
Administration:	I.G. (gavage) once daily for 7 days.
Result:	Significantly decreased the plasma SM levels compared with vehicle group.

Animal Model:	ApoE KO mice (eight-week-old)[1].
Dosage:	12.5 or 40 mg/kg.
Administration:	I.G. (gavage) once daily.
Result:	The levels of ALT and AST in the plasma of apoE KO mice did not show statistic changes when compared with the control group.

CUSTOMER VALIDATION

- Clin Transl Med. 2023 Mar;13(3):e1229.

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REFERENCES

[1]. Li Y, et al. Discovery, synthesis and anti-atherosclerotic activities of a novel selective sphingomyelin synthase 2 inhibitor. Eur J Med Chem. 2019 Feb 1;163:864-882.

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