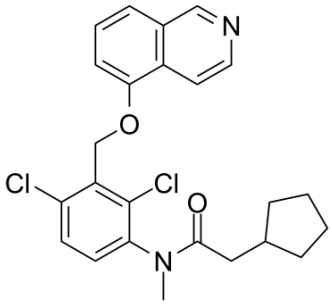
AS1708727

Cat. No.:	HY-123046
CAS No.:	1253226-93-5
Molecular Formula:	$C_{24}H_{24}Cl_2N_2O_2$
Molecular Weight:	443.37
Target:	Others
Pathway:	Others
Storage:	Please store the product under the recommended conditions in the Certificate of Analysis.



BIOLOGICAL ACTIVITY

Description

AS1708727 is an orally active Foxo1 inhibitor, with EC_{50} values of 0.33 μM and 0.59 μM for G6Pase and PEPCK, respectively[1].

In Vitro

AS1708727 suppresses increases in blood glucose level by inhibiting gluconeogenic gene expression[1].

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

RT-PCR[1]

Cell Line:	Fao cells, derived from the H4IIE hepatoma cell line.
Concentration:	0.1-3000 μM.
Incubation Time:	18 h.
Result:	Showed dose-dependent reduction in mRNA levels for G6Pase and PEPCK.

In Vivo

AS1708727 (30 to 300 mg/kg, orally) reduces both blood glucose and triglyceride levels, exhibiting anti-diabetic effects[1].

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Animal Model:	db/db mice aged six weeks[1].
Dosage:	100-1000 mg/kg (Pharmacokinetic Analysis).
Administration:	Orally.
Result:	C_{max}) was 26.7 μM and maximum drug concentration time (T_{max}) of 0.5 h at 300 mg/kg[1]. Liver concentration of AS1708727 at 0.5-2 h after oral administration was 3.7- to 5.4-fold higher than the plasma concentration, indicating good liver transition of AS1708727[1].

Animal Model:	Diabetic model mice[1].
Dosage:	30 to 300 mg/kg.
Administration:	Orally twice daily for 4 days.

Result:	Blood glucose level was significantly reduced at 300 mg/kg[1]. Plasma alanine aminotransferase (ALT) and aspartate aminotransferase (AST) levels were significantly reduced at 300 mg/kg[1]. G6Pase and PEPCK mRNA levels were significantly reduced at dosages of 100 and 300 mg/kg[1].

REFERENCES

[1]. Hirotsugu Tanaka, et al. Effects of the Novel Foxo1 Inhibitor AS1708727 on Plasma Glucose and Triglyceride Levels in Diabetic Db/Db Mice. Eur J Pharmacol. 2010 Oct 25;645(1-3):185-91.

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