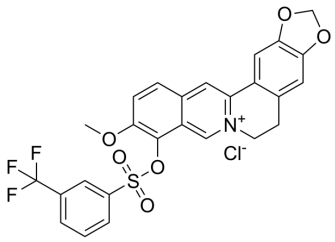
Lipid-lowering agent-1

Cat. No.:	HY-115914
CAS No.:	2304859-34-3
Molecular Formula:	$C_{26}H_{19}ClF_3NO_6S$
Molecular Weight:	565.95
Target:	Others
Pathway:	Others
Storage:	Please store the product under the recommended conditions in the Certificate of Analysis.



BIOLOGICAL ACTIVITY

Description

Lipid-lowering agent-1 is a potent lipid-lowering agent. Lipid-lowering agent-1 has significant pharmacological effects on the inhibition of low-density lipoprotein cholesterol (LDLC) and promotion of high-density lipoprotein cholesterol (HDLC) production. Lipid-lowering agent-1 shows potent hypolipidemic effect in high-fat diet rats[1].

In Vitro

Lipid-lowering agent-1 (compound 1m) (12.5 μM; 72 hours) does not exhibit significant toxicity to both HepG2 and 3T3-L1 cells at a high concentration[1].

Lipid-lowering agent-1 (10 μM; 24 hours) has significant pharmacological effects on the inhibition of LDLC and promotion of HDLC production[1].

Lipid-lowering agent-1 (10 μM; 24 hours) inhibits the conversion of 3T3-L1 cells from pre-adipose to adipose-like with the inhibition of triglycerides (TG) by 70.4%[1].

Lipid-lowering agent-1 (10 μM; 10 days) decreases yellow lipid droplets effectively in 3T3-L1 cells[1].

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

Cell Cytotoxicity Assay

Cell Line:	HepG2 and 3T3-L1[1]
Concentration:	12.5 μM
Incubation Time:	72 hours
Result:	Did not exhibit significant toxicity to both HepG2 and 3T3-L1 cells at a high concentration.

Cell Differentiation Assay

Cell Line:	3T3-L1 cells[1]
Concentration:	10 μM
Incubation Time:	24 hours
Result:	Inhibited the conversion of 3T3-L1 cells from pre-adipose to adipose-like with the inhibition of triglycerides (TG) by 70.4%

In Vivo

Lipid-lowering agent-1 (15 mg/kg; i.g., daily for 40 or 80 days) reduces blood cholesterolby, triglycerides and LDLC by 19.6%, 34.52%, and 41.49% after dosing 40 days, moreover the three indexes is still better than that of berberine after dosing 80

days[1].

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

Animal Model:	High-fat diet (HFD) rats[1]
Dosage:	15 mg/kg
Administration:	i.g., daily for 40 or 80 days
Result:	Reduced blood cholesterolby, triglycerides and LDLC by 19.6%, 34.52%, and 41.49% after dosing 40 days, moreover the three indexes was still better than that of berberine after dosing 80 days.

REFERENCES

[1]. Kong Y, et al. Discovery and structural optimization of 9-O-phenylsulfonyl-berberines as new lipid-lowering agents. Bioorg Chem. 2022;121:105665.

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