Quercetin 3-(6″-caffeoylsophoroside)

Cat. No.: HY-N11844

CAS No.: 1032595-77-9

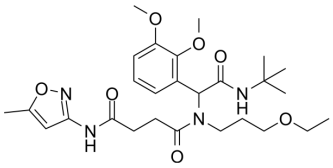
Molecular Formula: $C_{27}H_{40}N_4O_7$

Molecular Weight: 532.63

Target: Amylases

Pathway: Metabolic Enzyme/Protease

Storage: Please store the product under the recommended conditions in the Certificate of Analysis.



BIOLOGICAL ACTIVITY

Description

Quercetin 3-(6″-caffeoylsophoroside) is an orally active α-amylase inhibitor, with an IC_{50} of 73.66 μg/mL. Quercetin 3-(6″-caffeoylsophoroside) presents in thehydro-methanolic extract of Cardamine hirsuta Linn. Quercetin 3-(6″-caffeoylsophoroside) shows the antidiabetic activities by oxidative stress reduction and α-amylase inhibition. Quercetin 3-(6″-caffeoylsophoroside) can be used for diabetes mellitus research[1].

In Vivo

Quercetin 3-(6″-caffeoylsophoroside) (50, 100, 500, 1000, and 2000 mg/kg, p.o.) shows safety in acute oral toxicity of SD rats and can be used in anti-diabetic research[1].

Quercetin 3-(6″-caffeoylsophoroside) (125, 250, 500 mg/kg, p.o.) improves type 2 diabetes mellitus of SD rats by oxidative stress reduction and α-amylase inhibition[1].

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

Animal Model:	FED HFD (45% fat) for 30 days to induce type 2 diabetes mellitus in SD rats[1]
Dosage:	125, 250, 500 mg/kg
Administration:	Oral gavage (p.o.)
Result:	Significantly decreased the blood glucose level, improved biochemical parameters as well as oxidative stress by reduction of lipid peroxidation, and increased high-density lipoproteins with dose of 500mg/kg. Enhanced activities of glutathione-s-transferase, glutathione, superoxide dismutase. Restored cellular architecture in the histopathological examination.

Animal Model:	Acute oral toxicity in 8-week male SD rats[1]
Dosage:	50, 100, 500, 1000, and 2000 mg/kg
Administration:	Oral gavage (p.o.)
Result:	Safe for use in anti-diabetic research.

REFERENCES

[1]. Malik A, et.al. In Vitro, In Silico, and In Vivo Studies of Cardamine hirsute Linn as a Potential Antidiabetic Agent in a Rat Model. ACS Omega. 2023 Jun 12;8(25):22623-22636.

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