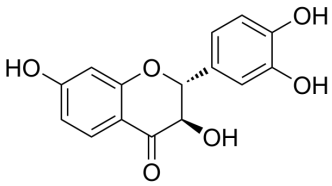
Fustin

Cat. No.:	HY-N8376
CAS No.:	20725-03-5
Molecular Formula:	$C_{15}H_{12}O_6$
Molecular Weight:	288.25
Target:	Amyloid-β; mAChR; Cholinesterase (ChE)
Pathway:	Neuronal Signaling; GPCR/G Protein
Storage:	Powder -20°C 3 years In solvent -80°C 6 months -20°C 1 month



BIOLOGICAL ACTIVITY

Description

Fustinis ((±)-Fustin; 3,7,3',4'-Tetrahydroxyflavanone) is a potent amyloid β (Aβ) inhibitor. Fustinis ((±)-Fustin; 3,7,3',4'-Tetrahydroxyflavanone) increases the expression of acetylcholine (ACh) levels, choline acetyltransferase (ChAT) activity, and ChAT gene induced by Aβ (1-42). Fustinis ((±)-Fustin; 3,7,3',4'-Tetrahydroxyflavanone) decreases in acetyl cholinesterase (AChE) activity and AChE gene expression induced by Aβ (1-42). Fustinis ((±)-Fustin; 3,7,3',4'-Tetrahydroxyflavanone) increases muscarinic M1 receptor gene expression and muscarinic M1 receptor binding activity. Fustinis ((±)-Fustin; 3,7,3',4'-Tetrahydroxyflavanone) can be used for Alzheimer's disease research[1].

In Vivo

Fustinis ((±)-Fustin; 3,7,3',4'-Tetrahydroxyflavanone) (50-100 mg/kg; p.o.; daily, for 11days; Aβ-treated C57BL/6 mice) attenuates Aβ (1-42)-induced impairments in conditioned fear learning and passive avoidance behavior[1].
Fustinis ((±)-Fustin; 3,7,3',4'-Tetrahydroxyflavanone) (50-100 mg/kg; p.o.; daily, for 11days; Aβ-treated C57BL/6 mice) alters A β (1-42)-induced changes in ACh level and AChE and ChAT activity and gene expression[1].
Fustinis ((±)-Fustin; 3,7,3',4'-Tetrahydroxyflavanone) (50-100 mg/kg; p.o.; daily, for 11days; Aβ-treated C57BL/6 mice) increases Aβ (1-42)-induced reduction in M1 receptor mRNA and protein expression in Aβ-treated C57BL/6 mice. Fustin increases p-ERK and p-CREB expression in Aβ-treated C57BL/6 mice[1].
MCE has not independently confirmed the accuracy of these methods. They are for reference only.

Animal Model:	Aβ-treated C57BL/6 mice[1]
Dosage:	50 and 100 mg/kg
Administration:	Oral administration;daily, for 11days
Result:	Decreased freezing response in Aβ-treated C57BL/6 mice.

Animal Model:	Aβ-treated C57BL/6 mice[1]
Dosage:	50 and 100 mg/kg
Administration:	Oral administration;daily, for 11days
Result:	Increased the expression of Ach, ChAT gene and ChAT activity. Decreased the expression of AChE gene and AChE activity.

Animal Model:	Aβ-treated C57BL/6 mice[1]
Dosage:	50 and 100 mg/kg
Administration:	Oral administration;daily, for 11days
Result:	Increased gene expression of M2- , M3- ,M4-, M5-, α4β, α7-receptor, p-ERK and p-CREB.

REFERENCES

[1]. Jin CH, et, al. Fustin flavonoid attenuates beta-amyloid (1-42)-induced learning impairment. J Neurosci Res. 2009 Dec;87(16):3658-70.

Tel: 609-228-6898 Fax: 609-228-5909 E-mail: tech@MedChemExpress.com
Address: 1 Deer Park Dr, Suite Q, Monmouth Junction, NJ 08852, USA