Isoferulic acid

Cat. No.: HY-N0761

CAS No.: 537-73-5

Molecular Formula: $C_{10}H_{10}O_4$

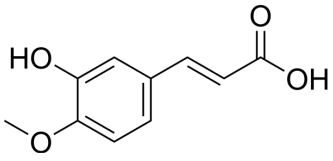
Molecular Weight: 194.18

Target: Adrenergic Receptor; Influenza Virus

Pathway: GPCR/G Protein; Neuronal Signaling; Anti-infection

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 : 100 mg/mL (514.99 mM; Need ultrasonic)

Preparing Stock Solutions

Solvent / Mass / Concentration	1 mg	5 mg	10 mg
1 mM	5.1499 mL	25.7493 mL	51.4986 mL
5 mM	1.0300 mL	5.1499 mL	10.2997 mL
10 mM	0.5150 mL	2.5749 mL	5.1499 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 (10.71 mM); Clear solution
2. Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline)
   Solubility: ≥ 2.08 mg/mL (10.71 mM); Clear solution
3. Add each solvent one by one: 10% DMSO >> 90% corn oil
   Solubility: ≥ 2.08 mg/mL (10.71 mM); Clear solution

BIOLOGICAL ACTIVITY

Description

Isoferulic acid (3-Hydroxy-4-methoxycinnamic acid) is a cinnamic acid derivative that has antidiabetic activity. Isoferulic acid binds to and activates α1-adrenergic receptors (IC_{50}=1.4 μM) to enhance secretion of β-endorphin (EC_{50}=52.2 nM) and increase glucose use. Isoferulic acid also has anti-influenza virus activities.

IC_{50} & Target

α adrenergic receptor

REFERENCES

[1]. Liu IM, et al. Mediation of beta-endorphin by isoferulic acid to lower plasma glucose in streptozotocin-induced diabetic rats. J Pharmacol Exp Ther. 2003 Dec;307(3):1196-204.

[2]. Sakai S, et al. Administration of isoferulic acid improved the survival rate of lethal influenza virus pneumonia in mice. Mediators Inflamm. 2001 Apr;10(2):93-6.

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