Clovamide

Cat. No.: HY-122267

CAS No.: 53755-02-5

Molecular Formula: $C_{18}H_{17}NO_7$

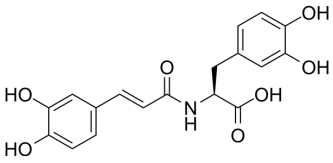
Molecular Weight: 359.33

Target: Reactive Oxygen Species; Bacterial; Influenza Virus; Apoptosis

Pathway: Immunology/Inflammation; Metabolic Enzyme/Protease; NF-κB; Anti-infection; Apoptosis

Storage:

Powder	-20°C	3 years
	4°C	2 years
In solvent	-80°C	6 months
	-20°C	1 month



SOLVENT & SOLUBILITY

In Vitro

DMSO : 125 mg/mL (347.87 mM; ultrasonic and warming and heat to 60°C)

Preparing Stock Solutions	Solvent / Mass / Concentration	1 mg	5 mg	10 mg
	1 mM	2.7830 mL	13.9148 mL	27.8296 mL
	5 mM	0.5566 mL	2.7830 mL	5.5659 mL
	10 mM	0.2783 mL	1.3915 mL	2.7830 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 (5.79 mM); Clear solution
2. Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline)
   Solubility: ≥ 2.08 mg/mL (5.79 mM); Clear solution
3. Add each solvent one by one: 10% DMSO >> 90% corn oil
   Solubility: ≥ 2.08 mg/mL (5.79 mM); Clear solution

BIOLOGICAL ACTIVITY

Description

Clovamide (trans-Clovamide), a natural phenolic compound, is a potent antioxidant. Clovamide is an excellent ROS and oxygen radical scavenger. Clovamide also has anti-inflammatory and neuroprotective effects[1][2]. Clovamide is an anti-microbial with activity against the human pathogens influenza A subtype H5N1, ***Trypanosoma evansi***, and ***Heliobacter pylori*** [3].

In Vitro

Clovamide is able to protect neurons from injury in three in vitro models of neuronal death: oxidative stress, excitotoxicity

and OGD/reoxygenation. In SH-SY5Y human neuroblastoma cells, Clovamide (10-100 μM) significantly protects cell death, with an EC50 value of 3.6 μM. Clovamide also significantly enhances PPARγ expression[2].
Clovamide inhibits growth of three pathogens of cacao in the genus Phytophthora, is a substrate for cacao polyphenol oxidase, and is a contributor to enzymatic browning. Clovamide inhibiteds proteinase and pectinase in vitro[3].
MCE has not independently confirmed the accuracy of these methods. They are for reference only.

REFERENCES

[1]. Naike Ye, et al. Antioxidant studies by hydrodynamic voltammetry and DFT, quantitative analyses by HPLC-DAD of clovamide, a natural phenolic compound found in Theobroma Cacao L. beans. Food Chem. 2021 Mar 30;341(Pt 2):128260.

[2]. S Fallarini, et al. Clovamide and rosmarinic acid induce neuroprotective effects in in vitro models of neuronal death. Br J Pharmacol. 2009 Jul;157(6):1072-84.

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