Pulchinenoside A

Cat. No.: HY-N0204

CAS No.: 129724-84-1

Molecular Formula: $C_{41}H_{66}O_{12}$

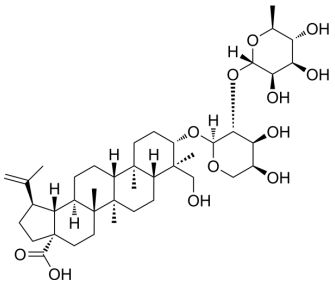
Molecular Weight: 750.96

Target: iGluR

Pathway: Membrane Transporter/Ion Channel; Neuronal Signaling

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 : 50 mg/mL (66.58 mM; Need ultrasonic)

Preparing Stock Solutions

Solvent / Mass / Concentration	1 mg	5 mg	10 mg
1 mM	1.3316 mL	6.6581 mL	13.3163 mL
5 mM	0.2663 mL	1.3316 mL	2.6633 mL
10 mM	0.1332 mL	0.6658 mL	1.3316 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: ≥ 2.5 mg/mL (3.33 mM); Clear solution
2. Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline)
   Solubility: ≥ 2.5 mg/mL (3.33 mM); Clear solution
3. Add each solvent one by one: 10% DMSO >> 90% corn oil
   Solubility: ≥ 2.5 mg/mL (3.33 mM); Clear solution

BIOLOGICAL ACTIVITY

Description

Pulchinenoside A is a natural triterpenoid saponin that enhances synaptic plasticity in the adult mouse hippocampus and facilitates spatial memory in adult mice.In vitro: Additions of pulsatilloside A and anemoside A3, at dosages ranging from 0.1, 1 and 10 μg/ml, protected PC12 cells from apoptosis. [1]In vivo:AA3 also acts as a non-competitive NMDA receptor (NMDAR) modulator with a neuroprotective capacity against ischemic brain injury and overexcitation in rats. [2] Anemoside A3 produces relaxation in rat renal arteries through multiple mechanisms. [3]

IC_{50} & Target

NMDA Receptor

REFERENCES

[1]. Ip FC et al. Anemoside A3 Enhances Cognition through the Regulation of Synaptic Function and Neuroprotection. Neuropsychopharmacology. 2015 Jul;40(8):1877-87.

[2]. Zhang DM et al. Anemoside A3-induced relaxation in rat renal arteries: role of endothelium and Ca2+ channel inhibition. Planta Med. 2010 Nov;76(16):1814-9.

[3]. Gao XD et al. Pulsatilloside A and anemoside A3 protect PC12 cells from apoptosis induced by sodium cyanide and glucose deprivation. Planta Med. 2003 Feb;69(2):171-4.

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