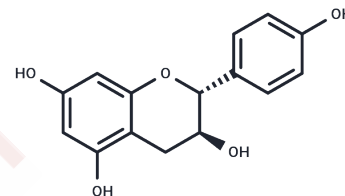


(+)-Afzelechin

Chemical Properties

CAS No. :	2545-00-8
Formula:	C ₁₅ H ₁₄ O ₅
Molecular Weight:	274.27
Storage:	Powder: -20°C for 3 years In solvent: -80°C for 1 year Actual storage temperature shall be subject to the COA.



Biological Description

Description	(+)-Afzelechin (Afzelechin) is isolated from Eysenhardtia subcoriacea. It is an α -glucosidase activity inhibitor, offering neuroprotective effects against glutamate-induced neurotoxicity in HT22 cells and improving reduced glutathione levels in rat pancreas homogenates.
Targets(IC50)	Glucosidase, glycosidase
In vitro	Treatment of human umbilical vein endothelial cells (HUVECs) with (+)-Afzelechin (20 μ M, 6h) effectively inhibited the production of iNOS and prevented LPS-induced NO synthesis. (+)-Afzelechin (2-20 μ M, 6h) demonstrated its anti-inflammatory ability by down-regulating IL-1 β expression in LPS-treated HUVEC. [1] (+)-Afzelechin improves the efficacy of sepsis induced ALI by modulating TLR4/NF- κ B, PI3K/Akt, Hippo, and Rho signaling pathways to reduce inflammation. [2]
In vivo	(+)-Afzelechin (0.04-0.4 mg/kg, intravenously), results showed significantly reduced iNOS expression in mice with LPS-induced lung injury models, indicating the anti-inflammatory activity of (+)-Afzelechin in vivo. [1]

Solubility Information

Solubility	DMSO: 80 mg/mL (291.68 mM), Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)
In vivo Formulation	10% DMSO+40% PEG300+5% Tween-80+45% Saline: 3.3 mg/mL (12.03 mM), Sonication is recommended. <i>Please add the solvents sequentially, clarifying the solution as much as possible before adding the next one. Dissolve by heating and/or sonication if necessary. Working solution is recommended to be prepared and used immediately. The formulation provided above is for reference purposes only. In vivo formulations may vary and should be modified based on specific experimental conditions.</i>

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	3.646 mL	18.2302 mL	36.4604 mL
5 mM	0.7292 mL	3.646 mL	7.2921 mL
10 mM	0.3646 mL	1.823 mL	3.646 mL
50 mM	0.0729 mL	0.3646 mL	0.7292 mL

Please select the appropriate solvent to prepare the stock solution, according to the solubility of the product in different solvents. Please use it as soon as possible.

Note: The dilution table applies only to solid products. For liquid products, please calculate the stock solution based on the stated concentration and/or density.

Reference

Lee IC, Bae JS. Anti-Inflammatory Activities of (+)-Afzelechin against Lipopolysaccharide-Induced Inflammation. *Biomol Ther (Seoul)*. 2024 Jul 1;32(4):467-473.

Cho S, et al. The Therapeutic Potential of (+)-Afzelechin for Alleviating Sepsis-Associated Pulmonary Injury. *J Med Food*. 2024 Jan;27(1):12-21.

Inhibitor · Natural Compounds · Compound Libraries · Recombinant Proteins

This product is for Research Use Only · Not for Human or Veterinary or Therapeutic Use

Tel:781-999-4286 E_mail:info@targetmol.com Address:34 Washington Street,Wellesley Hills,MA 02481