Data Sheet (Cat.No.TN3541)

TargetMol

Broussonin E

Chemical Properties

CAS No. :	90902-21-9
Formula:	C17H20O4
Molecular Weight:	288.34
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	Broussonin E is a natural phenolic compound belonging to the class of polyphenolic secondary metabolites. It inhibits inflammation by suppressing ERK and p38 MAPK, enhancing the JAK2-STAT3 signaling pathway, and regulating the activation state of macrophages. Broussonin E exhibits antioxidant, anti-inflammatory, and tyrosinase-inhibitory activities and is commonly used in research on natural medicines and skin biology.
Targets(IC50)	ERK,STAT,COX,IL Receptor,JAK,p38 MAPK
In vitro	Broussonin E (20 μM, 3 h) inhibits LPS (lipopolysaccharides)-stimulated phosphorylation of ERK and p38 MAPK[1]. Broussonin E activates Janus kinase (JAK) 2 and signal transduction and transcription activator (STAT) 3[1]. Broussonin E (0–20 μM, 3 h) inhibits LPS-induced pro-inflammatory production in RAW264.7 cells, including TNF-α, IL-1β, IL-6, COX-2, and iNOS[1]. Broussonin E enhances the expression of anti-inflammatory mediators such as IL-10, CD206, and arginase-1 (Arg-1) in LPS-stimulated RAW264.7 cells [1].

Solubility Information

Solubility	DMSO: 80 mg/mL (277.45 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	3.4681 mL	17.3406 mL	34.6813 mL
5 mM	0.6936 mL	3.4681 mL	6.9363 mL
10 mM	0.3468 mL	1.7341 mL	3.4681 mL
50 mM	0.0694 mL	0.3468 mL	0.6936 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

Huang SP, et al. Broussonin E suppresses LPS-induced inflammatory response in macrophages via inhibiting MAPK pathway and enhancing JAK2-STAT3 pathway. Chin J Nat Med. 2019 May 20;17(5):372-380.