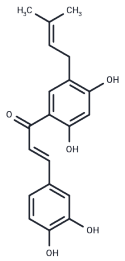
Data Sheet (Cat.No.T72594)

TargetMol

Broussochalcone A

Chemical Properties



CAS No. : 99217-68-2

Formula: C20H20O5

Molecular Weight: 340.37

Storage: Keep away from moisture,Store at low temperature
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	Broussochalcone A is a natural antioxidant and xanthine oxidase inhibitor (IC50 = 2.21 μM) that scavenges free radicals, inhibits iron-induced lipid peroxidation, and reduces nitric oxide synthesis in LPS-activated macrophages. Broussochalcone A induces apoptosis in human renal carcinoma cells by increasing ROS levels and activating the FOXO3 signaling pathway. Broussochalcone A is also a novel NR4A1 inhibitor that induces apoptosis in pancreatic cancer cells through NR4A1-dependent pathways.
Targets(IC50)	Apoptosis,Reactive Oxygen Species,FOXO,ROS,Xanthine Oxidase,NR4A
In vitro	Methods: Broussochalcone A (1-30 μM) was incubated with DPPH (100 μM) at room temperature for 30 min, and the decrease in absorbance at 517 nm was measured. The DPPH scavenging activity of BCA was investigated. Results: The scavenging activity of Broussochalcone A was concentration-dependent. Methods: Cells were treated with Broussochalcone A (1-20 μM) for 30 min and then stimulated with LPS (1 mg/mL). After 24 h, nitrite levels in the culture medium were analyzed by Griess reaction. Its effect on nitrite production in LPS-activated RAW 264.7 macrophages was investigated. Results: Broussochalcone A inhibited nitrite production in a concentration-dependent manner, and its IC50 value was calculated to be 11.3±0.8 μM. [2]

Solubility Information

Solubility	DMSO: 150 mg/mL (440.7 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: 10 mg/mL (29.38 mM),Solution. 10% DMSO+90% Saline: < 10 mg/mL (29.38 mM),Lower concentrations may be soluble, but exact solubility limit is unknown. *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.*

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	2.938 mL	14.6899 mL	29.3798 mL
5 mM	0.5876 mL	2.938 mL	5.876 mL
10 mM	0.2938 mL	1.469 mL	2.938 mL
50 mM	0.0588 mL	0.2938 mL	0.5876 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 HK, et al. Broussochalcone A Induces Apoptosis in Human Renal Cancer Cells via ROS Level Elevation and Activation of FOXO3 Signaling Pathway. Oxid Med Cell Longev. 2021 Oct 27;2021:2800706.
Cheng Z, et al. Broussochalcone A, a potent antioxidant and effective suppressor of inducible nitric oxide synthase in lipopolysaccharide-activated macrophages. Biochem Pharmacol. 2001 Apr 15;61(8):939-46.