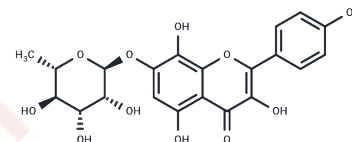


Rhodionin

Chemical Properties

CAS No. :	85571-15-9
Formula:	C ₂₁ H ₂₀ O ₁₁
Molecular Weight:	448.38
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	N-Acetyl-L-aspartic acid is a derivative of aspartic acid, synthesized in neurons from the amino acid aspartic acid and acetyl coenzyme A. N-Acetyl-L-aspartic acid has antioxidant activity.
Targets(IC50)	Cholinesterase (ChE), Cytochromes P450
In vitro	Quantification of these compounds was performed by high-performance liquid chromatography (HPLC). To investigate the antioxidant and anti-inflammatory effects of the compounds, DPPH radical scavenging, NBT superoxide scavenging and nitric oxide production inhibitory activities were examined in LPS-stimulated Raw 264.7 cells. We suggest that the major active components of RRS are herbacetin glycosides, exhibiting antioxidant activity, and kaempferol, exhibiting anti-inflammatory activity. In this study, 1,1-diphenyl-2-picryl-hydrazyl (DPPH) radical scavenging activity and nitrotetrazolium blue chloride (NBT) superoxide scavenging activity were measured to assess the antioxidant activity of the components from RRS. DPPH has the ability to easily accept hydrogen atoms because it contains an unstable element, the hydrazyl nitrogen, therefore, antioxidant activity can be measured because DPPH loses its violet color when it receives hydrogens from antioxidants. Additionally, NBT has the ability to easily receive superoxide because it contains unstable anions. Therefore, antioxidant activity may be measured when NBT loses its yellow color upon reaction with abundant superoxide. Among the compounds from RRS, 7(Rhodionin) and 8 exhibited the most potent DPPH free radical scavenging activities, with IC ₅₀ values of 19.49 ± 0.21 and 27.77 ± 0.61 μM, respectively, compared to the positive control, L-ascorbic acid (IC ₅₀ = 32.89 ± 0.70 μM). The other compounds did not exhibit activities in this assay up to 100 μM (Table 2).

Solubility Information

Solubility	DMSO: 50 mg/mL (111.51 mM), Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)
In vivo Formulation	10% DMSO+90% Saline: 1.67 mg/mL (3.72 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	2.2303 mL	11.1513 mL	22.3025 mL
5 mM	0.4461 mL	2.2303 mL	4.4605 mL
10 mM	0.223 mL	1.1151 mL	2.2303 mL
50 mM	0.0446 mL	0.223 mL	0.4461 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

The antioxidant and anti-inflammatory effects of phenolic compounds isolated from the root of *Rhodiola sachalinensis* A. BOR.Molecules. 2012 Sep 27;17(10):11484-94.

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