Data Sheet (Cat.No.TMA1241)

TargetMol
A DRUG SCREENING EXPERT

Apterin

Chemical Properties

CAS No.:	53947-89-0
Formula:	C20H24O10
Molecular Weight:	424.4
Appearance:	N/A
Storage:	0-4℃ for short term (days to weeks), or -20℃ for long term (months).

Biological Description

Description	Apterin has anti-inflammatory activity in vitro, it shows significantly inhibitory activity on nitric oxide production in RAW264.7 cells.
Targets(IC_{50})	NO: None
In vitro	Seventeen compounds were isolated from the n-butanol soluble fraction of the leaves of Peucedanum japonicum Thunb. METHODS AND RESULTS:On the basis of MS and various NMR spectroscopic techniques, the structures of the isolated compounds were determined as isoquercitrin (1), rutin (2), 3-O-caffeoylquinic acid (3), 4-O-caffeoylquinic acid (4), 5-O-caffeoylquinic acid (5), cnidioside A (6), praeroside II (7), praeroside III (8), Apterin (9), esculin (10), (R)-peucedanol (11), (R)-peucedanol 7-O-beta-d-glucopyranoside (12), l-tryptophan (13), uracil (14), guanosine (15), uridine (16), and thymidine (17). All compounds except 11 and 12 were isolated for the first time from P. japonicum. Several isolated compounds were quantified by high-performance liquid chromatography analysis. In addition, all isolated compounds were examined for radical scavenging on 1,1-diphenyl-2-picrylhydrazyl radical and for inhibition of oxidation of liposome induced by 2,2'-azobis(2-amidinopropane)dihydrochloride. CONCLUSIONS:Compounds 2-5 were found to be the major potent constituents, which contribute to the antioxidant activity of P. japonicum leaves.

Solubility Information

Solubility	< 1 mg/ml refers to the product slightly soluble or insoluble

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	2.356 mL	11.781 mL	23.563 mL
5 mM	0.471 mL	2.356 mL	4.713 mL
10 mM	0.236 mL	1.178 mL	2.356 mL
50 mM	0.047 mL	0.236 mL	0.471 mL

Please select the appropriate solvent to prepare the stock solution, according to the solubility of the product in different solvents. The storage conditions and period of the stock solution: - 80 ℃ for 6 months; - 20 ℃ for 1 month. Please use it as soon as possible.

Reference

1. Antioxidant compounds from the leaves of Peucedanum japonicum thunb. J Agric Food Chem. 2003 Aug 27;51(18):5255-61.

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