

Data Sheet (Cat.No.TN2473)

1-(4-Hydroxybenzoyl)glucose

Chemical Properties

CAS No.:	25545-07-7
Formula:	C13H16O8
Molecular Weight:	300.26
Appearance:	N/A
Storage:	0-4°C for short term (days to weeks), or -20°C for long term (months).

Biological Description

Description	1-(4-Hydroxybenzoyl)glucose is a natural product from <i>Luffa cylindrica</i> (L.) Roem.
Targets(IC ₅₀)	Others: None
In vitro	METHODS AND RESULTS: Hydrophilic antioxidant constituents in the fruits of the vegetable <i>Luffa cylindrica</i> (L.) Roem (sponge gourds) were separated by an antioxidant-guided assay to yield eight compounds: p-coumaric acid (1), 1-O-feruloyl-beta-D-glucose (2), 1-O-p-coumaroyl-beta-D-glucose (3), 1-O-caffeoyl-beta-D-glucose (4), 1-O-(4-hydroxybenzoyl)glucose (1-(4-Hydroxybenzoyl)glucose,5), diosmetin-7-O-beta-D-glucuronide methyl ester (6), apigenin-7-O-beta-D-glucuronide methyl ester (7), and luteolin-7-O-beta-D-glucuronide methyl ester (8). The eight compounds were isolated by high-speed countercurrent chromatography and identified by electrospray ionization-mass spectrometry and NMR analysis, and the antioxidant activity was evaluated by the radical scavenging effect on the 1,1-diphenyl-2-picrylhydrazyl radical. High-performance liquid chromatography analysis showed that a total amount of the eight compounds in the dried gourds without skin was about 1%. CONCLUSIONS: The results demonstrate that the consumption of sponge gourds can supply some antioxidant constituents to human body.

Solubility Information

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

	1mg	5mg	10mg
1 mM	3.330 mL	16.652 mL	33.304 mL
5 mM	0.666 mL	3.330 mL	6.661 mL
10 mM	0.333 mL	1.665 mL	3.330 mL
50 mM	0.067 mL	0.333 mL	0.666 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 °C for 6 months; - 20 °C for 1 month. Please use it as soon as possible.

Reference

1. Antioxidant constituents in the fruits of *Luffa cylindrica* (L.) Roem. *J Agric Food Chem.* 2006 Jun 14;54(12):4186-90.

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Tel:781-999-4286

E-mail:info@targetmol.com

Address:36 Washington Street,Wellesley Hills,MA 02481