

1,3,6-Tri-O-galloyl-beta-D-glucose

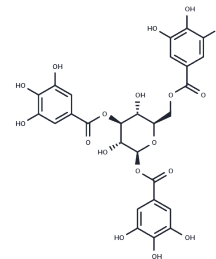
Chemical Properties

CAS No. : 18483-17-5

Formula: C₂₇H₂₄O₁₈

Molecular Weight: 636.47

Storage: Keep away from moisture, Keep away from direct sunlight
 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	1,3,6-Tri-O-galloyl-beta-D-glucose (1,3,6-Tri-O-galloylglucose) is a phenolic compound found in Black Walnut Kernels, exhibiting anti-inflammatory activity.
Targets(IC50)	Immunology/Inflammation related
In vitro	The compounds were isolated by silica gel column chromatography, Sephadex LH-20 column chromatography and ODS column chromatography. Their structures were elucidated by spectral analyses and physicochemical properties. The anti-inflammatory activities of selected isolated compounds were evaluated as inhibitory activities against lipopolysaccharide (LPS)-induced nitric oxide (NO) production in RAW264.7 cell lines by Griess reaction. Eight compounds were obtained from n-butanol fraction of <i>Mangifera indica</i> L. seed kernel, whose structures were elucidated as 4-O-ethylgallic acid (1), gallic acid (2), citric acid(3), 1,2,3,4,6-penta-O-galloylglucose(4), 1,3,6-Tri-O-galloylglucose(5), hyperoside(6), quercetin-3-O-rhamnopyranoside(7), and mangiferin(8). Compounds 1, 2 and 4-8 exhibited potent inhibitory effect on NO production in LPS-induced macrophages, especially compounds 6 and 8 showed the best inhibitory activity with IC50 values of 16.5 and 19.5 $\mu\text{mol}\cdot\text{L}^{-1}$, respectively.

Solubility Information

Solubility	H ₂ O: 1 mg/mL (1.57 mM), Sonication and heating are recommended. DMSO: 100 mg/mL (157.12 mM), Sonication and heating are recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)
In vivo Formulation	10% DMSO+40% PEG300+5% Tween 80+45% Saline: 3.3 mg/mL (5.18 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	1.5712 mL	7.8558 mL	15.7117 mL
5 mM	0.3142 mL	1.5712 mL	3.1423 mL
10 mM	0.1571 mL	0.7856 mL	1.5712 mL
50 mM	0.0314 mL	0.1571 mL	0.3142 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

Study on the anti-inflammatory active constituents of *Mangifera indica* L. seed kernel. Chinese Pharmaceutical Journal, 2015,50(19):1673-7.

Inhibitor · Natural Compounds · Compound Libraries · Recombinant Proteins

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Tel:781-999-4286 E_mail:info@targetmol.com Address:34 Washington Street,Wellesley Hills,MA 02481