

2''-O-Galloylquercitrin

Chemical Properties

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|-------------------|--|
| CAS No.: | 80229-08-9 |
| Formula: | C ₂₈ H ₂₄ O ₁₅ |
| Molecular Weight: | 600.5 |
| Appearance: | N/A |
| Storage: | 0-4°C for short term (days to weeks), or -20°C for long term (months). |

Biological Description

| | |
|----------------------------|---|
| Description | 2''-O-Galloylquercitrin is a natural product from Acer ginnala. |
| Targets(IC ₅₀) | Others: None |
| In vitro | <p>Gao-Cha is a traditional Chinese health tea made from Acer ginnala. METHODS AND RESULTS: We performed a components and radical scavenging activity analysis to identify any medicinal components in this tea. High performance thin layer chromatography (HPTLC)-1,1-Diphenyl-2-picrylhydrazyl (HPTLC-DPPH) assay showed that the methanolic extract contained strong radical scavengers. Quantitative analysis revealed that the IC(50) of the extract against 1 mM DPPH was $52.7 \pm 0.6 \mu\text{g/mL}$. Bioactive-guided isolations led to procurement of 3 radical scavengers with IC(50)s of 17.5 ± 2.1, 29.3 ± 2.5, and $21.6 \pm 1.7 \mu\text{g/mL}$, respectively. Analysis of the high resolution-electric spray ionization-mass spectrometer and (1)H, (13)C, distortionless enhancement by polarization transfer at 135°, heteronuclear quantum coherence, correlating spectroscopy coupling, and heteronuclear multiple bond coherence (HMBC) data revealed that the compounds were methyl 3, 4, 5-trihydroxybenzoate (1), quercetin-3-O-α-rhamnopyranoside (2), and 2,6-bis (3,4,5-trihydroxybenzoyl)-aceritol (3). CONCLUSIONS: Bioactive combined components analysis revealed that, apart from compounds 1, 2, and 3, the tea possibly contained radical scavengers: ginnalin A (4) and B (5), 2''-O-Galloylquercitrin (6) and 3''-O-Galloyl-quercitrin (7). Compounds 2, 6, and 7 were isolated from Acer ginnala for the first time. The positions of the 2 galloyl moieties in compound 3 were unambiguously established by the HMBC spectrum for the first time.</p> |

Solubility Information

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

| | 1mg | 5mg | 10mg |
|-------|----------|----------|-----------|
| 1 mM | 1.665 mL | 8.326 mL | 16.653 mL |
| 5 mM | 0.333 mL | 1.665 mL | 3.331 mL |
| 10 mM | 0.167 mL | 0.833 mL | 1.665 mL |
| 50 mM | 0.033 mL | 0.167 mL | 0.333 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. Activity-guided isolation and identification of radical scavenging components in Gao-Cha tea. J Food Sci. 2010 Oct;75(8):H239-43.

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