

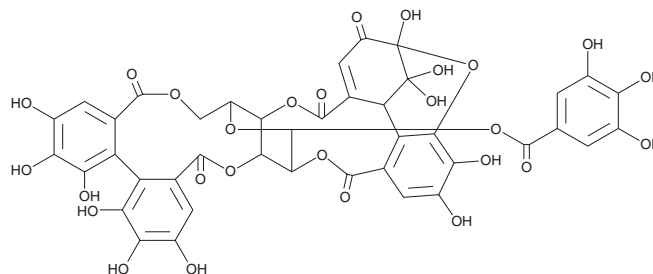
PRODUCT INFORMATION



Geraniin

Item No. 29924

CAS Registry No.: 60976-49-0
Formal Name: cyclic 2→7:4→5-(3,6-dihydro-2,9,10,11,11-pentahydroxy-3-oxo-2,6-methano-2H-1-benzoxocin-5,7-dicarboxylate) cyclic 3,6-(4,4',5,5',6,6'-hexahydroxy[1,1'-biphenyl]-2,2'-dicarboxylate) 1-(3,4,5-trihydroxybenzoate), β-D-glucopyranose, stereoisomer
Synonym: NSC 359346
MF: C₄₁H₂₈O₂₇
FW: 952.6
Purity: ≥98%
UV/Vis.: λ_{max}: 226, 280 nm
Supplied as: A crystalline solid
Storage: -20°C
Stability: ≥2 years
Item Origin: Plant/*Phyllanthus urinaria*



Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

Laboratory Procedures

Geraniin is supplied as a crystalline solid. A stock solution may be made by dissolving the geraniin in the solvent of choice, which should be purged with an inert gas. Geraniin is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide. The solubility of geraniin in these solvents is approximately 30 mg/ml.

Geraniin is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, geraniin should first be dissolved in ethanol and then diluted with the aqueous buffer of choice. Geraniin has a solubility of approximately 0.25 mg/ml in a 1:3 solution of ethanol:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

Description

Geraniin is a tannin that has been found in *P. urinaria* and has diverse biological activities.¹⁻³ It scavenges 2,2-diphenyl-1-picrylhydrazyl (DPPH; IC₅₀s = 0.92 and 1.27 μM at pH 4.5 and 7.9, respectively), superoxide (IC₅₀ = 2.65 μM), and hydroxyl radicals (IC₅₀ = 1.44 μM) in cell-free assays.¹ Geraniin inhibits herpes simplex virus 1 (HSV-1) and HSV-2 replication in plaque reduction assays (IC₅₀s = 35 and 18.4 μM, respectively).² It inhibits angiotensin-converting enzyme (ACE) *in vitro* (IC₅₀ = 13.22 μM) and reduces both systolic and diastolic blood pressure in spontaneously hypertensive rats when administered at a dose of 5 mg/kg.¹ Geraniin (5, 10, and 20 μM) induces apoptosis and halts the cell cycle at the S phase in A549 lung cancer cells.³ It reduces tumor growth in an A549 mouse xenograft model when administered at doses of 10 and 20 mg/kg.

References

1. Lin, S.-Y., Wang, C.-C., Lu, Y.-L., et al. *Food Chem. Toxicol.* **46**, 2485-2492 (2008).
2. Yang, C.-M., Cheng, H.-Y., Lin, T.-C., et al. *J. Ethnopharmacol.* **110**(3), 555-558 (2007).
3. Li, J., Wang, S., Yin, J., et al. *Can. J. Physiol. Pharmacol.* **91**(12), 1016-1024 (2013).

WARNING

THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

SAFETY DATA

This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the complete Safety Data Sheet, which has been sent via email to your institution.

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