PRODUCT INFORMATION



Geraniin

Item No. 29924

CAS Registry No.: Formal Name:	60976-49-0 cyclic 2 \rightarrow 7:4 \rightarrow 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		ОН
Synonym:	NSC 359346		ОН
MF:	C ₄₁ H ₂₈ O ₂₇		
FW:	952.6		
Purity:	≥98%	OH OH	
UV/Vis.:	λ _{max} : 226, 280 nm	но он	
Supplied as:	A crystalline solid		
Storage:	-20°C		
Stability:	≥4 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 μ M at pH 4.5 and 7.9, respectively), superoxide (IC₅₀ = 2.65 μ M), and hydroxyl radicals (IC₅₀ = 1.44 μ M) in cell-free assays.¹ Geraniin inhibits herpes simplex virus 1 (HSV-1) and HSV-2 replication in plaque reduction assays (IC₅₀ = 35 and 18.4 μ M, 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 μ M) 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.

SAFFTY 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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1180 EAST ELLSWORTH RD ANN ARBOR, MI 48108 · USA PHONE: [800] 364-9897 [734] 971-3335 FAX: [734] 971-3640 CUSTSERV@CAYMANCHEM.COM WWW.CAYMANCHEM.COM