

Geraniin Datasheet

4th Edition (Revised in July, 2016)

[Product Information]

Name: Geraniin

Catalog No.: CFN90256

Cas No.: 60976-49-0

Purity: >=98%

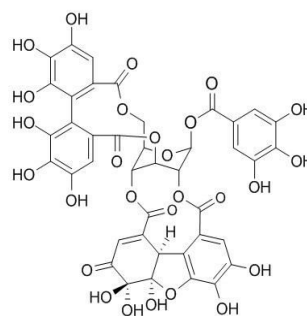
M.F: C₄₁H₂₈O₂₇

M.W: 952.64

Physical Description: Powder

Synonyms:

(26bR)-2,3,11,12,13,14,15,16,26,26,26a-undecahydroxy-5,9,18,23,25-pentaoxo-5,7a,9,18,20,21,21a,23,25,26,26a,26b-dodecahydro-7H-21,7-(epoxymethano)-1,6,8,19,22-pentaoxadibenzo[5',6':7',8']cyclododeca[1',2':7,8]cycloundeca[1,2,3,4-def]fluoren-28-yl 3,4,5-tri-
(3R,4aR,11R,11aS,25R,25aR,29S)-3,4,4,6,7,15,16,17,18,19,20-undecahydroxy-2,9,13,22,27-pentaoxo-2,3,4,4a,9,11a,13,22,24,25,25a,27-dodecahydro-11H-3,5-epoxy-25,11-(epoxymethano)dibenzo[h,j]dibenzo[7,8:9,10][1,5]dioxacycloundecino[3,2-b][1,6]dioxacyclododeci;(1R,7R,8S,26R,28S,29R,38R)-1,13,14,15,18,19,20,34,35,39,39-Undecahydroxy-2,5,10,23,31-pentaoxo-6,9,24,27,30,40-hexaoxaoctacyclo[34.3.1.0~4,38~.0~7,26~.0~8,29~.0~11,16~.0~17,22~.0~32,37~]tetraconta-3,11,13,15,17,19,21,32,34,36-decaen-28-yl 3,4,5-trihydroxybenzoate.



[Intended Use]

1. Reference standards;

2. Pharmacological research;
3. Synthetic precursor compounds;
5. Intermediates & Fine Chemicals;
5. Others.

[Source]

The herbs of *Phyllanthus urinaria* L.

[Biological Activity or Inhibitors]

Geraniin (GE) was identified as the major compound in the rind of *Nephelium lappaceum* L.(Sapindaceae), GE and its metabolites possess a range of bioactive properties including being an anti-infective, anticarcinogenic, antihyperglycemic, and antihypertensive.^[1]

Geraniin and furosin isolated from *Phyllanthus sellowianus*, have antinociceptive actions.^[2]

Geraniin has extremely high anti-oxidant activity and low pro-oxidant capability, geraniin is seen to possess in vitro hypoglycemic activity (alpha-glucosidase inhibition: $IC_{50} = 0.92$ ug/ml and alpha-amylase inhibition: $IC_{50} = 0.93$ ug/ml), aldol reductase inhibition activity ($IC_{50} = 7$ ug/ml) and has the ability to prevent the formation of advanced glycation end-products (AGE), it has the potential to be developed into an anti-hyperglycemic agent.^[3]

Geraniin shows moderate antibacterial activity against *Ralstonia solanacearum*.^[4]

[Solvent]

Pyridine, Methanol, Ethanol, etc.

[HPLC Method]^[5]

Mobile phase: Methanol - H₂O = 55:45 ;

Flow rate: 1.0 ml/min;

Column temperature: Room Temperature;

The wave length of determination: 220 nm.

[Storage]

2-8℃, Protected from air and light, refrigerate or freeze.

[References]

- [1] Elendran S, Wang L W, Prankerd R, *et al. Pharm. Biol.*, 2015, 53(12):1719-26.
- [2] Miguel O G, Calixto J B, Santos A R, *et al. Planta Med.*, 1996, 62(2):146-9.
- [3] Palanisamy U D, Lai T L, Manaharan T, *et al. Food Chem.*, 2011, 127(127):21-7.
- [4] Ooshiro A, Kaji M, Katoh Y, *et al. J. Pestic. Sci.*, 2011, 36(2):240-2.
- [5] Liu Y, Yang Y F, Wu, H Z, *et al. Journal of Chinese Medicinal Materials*, 2005, 28 (6): 473-4.

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