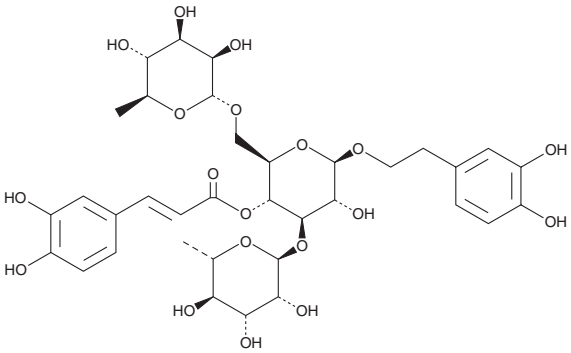
PRODUCT INFORMATION

Poliumoside

Item No. 34389

CAS Registry No.:	94079-81-9
Formal Name:	2-(3,4-dihydroxyphenyl)ethyl O-6-deoxy-α-L-mannopyranosyl-(1→3)-O-[6-deoxy-α-L-mannopyranosyl-(1→6)]-β-D-glucopyranoside, 4-[(2E)-3-(3,4-dihydroxyphenyl)-2-propenoate]
MF:	$C_{35}H_{46}O_{19}$
FW:	770.7
Purity:	≥95%
UV/Vis.:	λ_{max}: 219, 335 nm
Supplied as:	A solid
Storage:	-20°C
Stability:	≥2 years
Item Origin:	Plant/*Callicarpa bodinieri*



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

Laboratory Procedures

Poliumoside is supplied as a solid. A stock solution may be made by dissolving the poliumoside in the solvent of choice, which should be purged with an inert gas. Poliumoside is soluble in organic solvents such as DMSO and dimethyl formamide. The solubility of poliumoside in these solvents is approximately 15 and 5 mg/ml, respectively.

Further dilutions of the stock solution into aqueous buffers or isotonic saline should be made prior to performing biological experiments. Ensure that the residual amount of organic solvent is insignificant, since organic solvents may have physiological effects at low concentrations. Organic solvent-free aqueous solutions of poliumoside can be prepared by directly dissolving the solid in aqueous buffers. The solubility of poliumoside in PBS (pH 7.2) is approximately 10 mg/ml. We do not recommend storing the aqueous solution for more than one day.

Description

Poliumoside is a phenylethanoid glycoside that has been found in *C. dichotoma* and has diverse biological activities.[1-4] It scavenges DPPH (Item No. 14805) and ABTS (Item No. 27317) radicals (IC_{50}s = 10.9 and 19.9 µM), as well as inhibits the activity of PKCα (IC_{50} = 24.4 µM), in cell-free assays.[1,2] Poliumoside (12.5-100 µM) reduces LPS-induced production of TNF-α and IL-6 in RAW 264.7 cells.[3] It decreases glutamate-induced cytotoxicity in primary rat cortical neurons when used at concentrations of 0.1, 1, or 10 µM.[4]

References

1. Li, X., Xie, Y., Li, K., *et al.* Antioxidation and cytoprotection of acteoside and its derivatives: Comparison and mechanistic chemistry. *Molecules* **23(2)**, 498 (2018).
2. Zhou, B.-N., Bahler, B.D., Hofmann, G.A., *et al.* Phenylethanoid glycosides from *Digitalis purpurea* and *Penstemon linarioides* with PKCα-inhibitory activity. *J. Nat. Prod.* **61(11)**, 1410-1412 (1998).
3. Wu, A., Yang, Z., Huang, Y., *et al.* Natural phenylethanoid glycosides isolated from *Callicarpa kwangtungensis* suppressed lipopolysaccharide-mediated inflammatory response via activating Keap1/Nrf2/HO-1 pathway in RAW 264.7 macrophages cell. *J. Ethnaopharmacol.* **258**, 112857 (2020).
4. Koo, K.A., Sung, S.H., Park, J.H., *et al.* *In vitro* neuroprotective activities of phenylethanoid glycosides from *Callicarpa dichotoma*. *Planta Med.* **71(8)**, 778-780 (2005).

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