

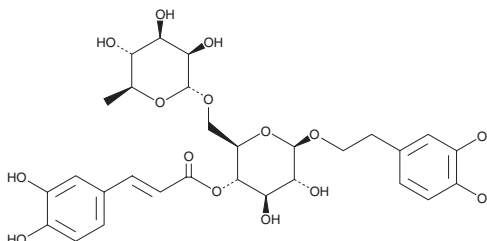
PRODUCT INFORMATION



Forsythoside A

Item No. 30110

CAS Registry No.: 79916-77-1
Formal Name: 2-(3,4-dihydroxyphenyl) ethyl 6-O-(6-deoxy- α -L-mannopyranosyl)- β -D-Glucopyranoside, 4-[(2E)-3-(3,4-dihydroxyphenyl)-2-propenoate]
Synonym: Forsythiaside
MF: C₂₉H₃₆O₁₅
FW: 624.6
Purity: \geq 98%
UV/Vis.: λ_{max} : 220, 333 nm
Supplied as: A crystalline solid
Storage: -20°C
Stability: \geq 4 years



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

Laboratory Procedures

Forsythoside A is supplied as a crystalline solid. A stock solution may be made by dissolving the forsythoside A in the solvent of choice, which should be purged with an inert gas. Forsythoside A is soluble in ethanol, DMSO, and dimethyl formamide (DMF). The solubility of forsythoside A in ethanol and DMF is approximately 30 mg/ml and 10 mg/ml in DMSO.

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 forsythoside A can be prepared by directly dissolving the crystalline solid in aqueous buffers. The solubility of forsythoside A in PBS, pH 7.2, is approximately 1 mg/ml. We do not recommend storing the aqueous solution for more than one day.

Description

Forsythoside A is a phenylethanoid glycoside that has been found in *F. suspensa* and has diverse biological activities.¹⁻⁴ It is active against *E. coli*, *P. aeruginosa*, and *S. aureus* (MICs = 38.33, 38.33, and 76.67 μ g/ml, respectively).¹ Forsythoside A scavenges 2,2-diphenyl-1-picrylhydrazyl (DPPH; Item No. 14805) radicals with an EC₅₀ value of 6.3 μ g/ml. It reduces apoptosis induced by amyloid- β (25-35) (A β (25-35)) in PC12 cells when used at concentrations of 10 and 25 μ M.³ Forsythoside A (15, 30, and 60 mg/kg per day) reduces increases in bronchoalveolar lavage fluid (BALF) levels of TNF- α , IL-6, and IL-1 β and neutrophil and macrophage infiltration induced by cigarette smoke in a mouse model of chronic obstructive pulmonary disease (COPD).² It decreases the latency mice take to find the platform in the Morris water maze in the SAMP8 model of rapid aging and dementia when administered at doses of 120 and 240 mg/kg per day.⁴

References

1. Qu, H., Zhang, Y., Wang, Y., et al. *J. Pharm. Pharmacol.* **60**(2), 261-266 (2008).
2. Cheng, L., Li, F., Ma, R., et al. *Int. Immunopharmacol.* **28**(1), 494-499 (2015).
3. Yan, X., Chen, T., Zhang, L., et al. *Eur. J. Pharmacol.* **810**, 141-148 (2017).
4. Wang, H.-M., Wang, L.-W., Liu, X.-M., et al. *Pharmacol. Biochem. Behav.* **105**, 134-141 (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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