

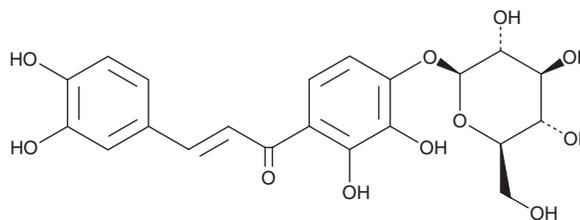
PRODUCT INFORMATION



Marein

Item No. 33213

CAS Registry No.: 535-96-6
Formal Name: (2E)-3-(3,4-dihydroxyphenyl)-1-[4-(β-D-glucopyranosyloxy)-2,3-dihydroxyphenyl]-2-propen-1-one
MF: C₂₁H₂₂O₁₁
FW: 450.4
Purity: ≥95%
UV/Vis.: λ_{max}: 383 nm
Supplied as: A crystalline solid
Storage: -20°C
Stability: ≥4 years
Item Origin: Plant/*Senecio cineraria*



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

Laboratory Procedures

Marein is supplied as a crystalline solid. A stock solution may be made by dissolving the marein in the solvent of choice, which should be purged with an inert gas. Marein is soluble in DMSO.

Description

Marein is a glucoside chalcone that has been found in *C. tinctoria* and has diverse biological activities, including antioxidant, enzyme inhibitory, antidiabetic, and anti-inflammatory properties.¹⁻³ It scavenges DPPH (Item No. 14805) radicals (IC₅₀ = 48.35 μM) in a cell-free assay and is an inhibitor of EGFR (IC₅₀ = 19.94 μM).^{1,2} Marein (50 mg/kg) reduces fasting blood glucose and fasting serum levels of insulin, triglycerides, LDL cholesterol, and total cholesterol in diabetic *db/db* mice.³ It also reduces serum and renal IL-6 and chemokine (C-C motif) ligand 2 (CCL2) levels, as well as decreases kidney fibrosis, in *db/db* mice.

References

1. Wang, W., Chen, W., Yang, Y., *et al.* New phenolic compounds from *Coreopsis tinctoria* Nutt. and their antioxidant and angiotensin i-converting enzyme inhibitory activities. *J. Agric. Food Chem* **63(1)**, 200-207 (2015).
2. Yang, E.B., Guo, Y.J., Zhang, K., *et al.* Inhibition of epidermal growth factor receptor tyrosine kinase by chalcone derivatives. *Biochim Biophys Acta.* **1550(2)**, 144-152 (2001).
3. Guo, Y., Ran, Z., Zhang, Y., *et al.* Marein ameliorates diabetic nephropathy by inhibiting renal sodium glucose transporter 2 and activating the AMPK signaling pathway in *db/db* mice and high glucose-treated HK-2 cells. *Biomed. Pharmacother.* **131**, 110684 (2020).

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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