

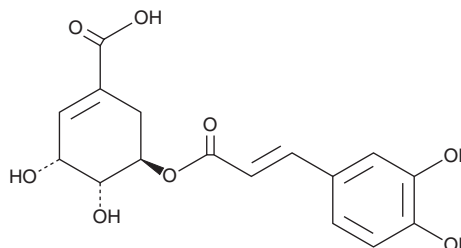
PRODUCT INFORMATION



5-O-Caffeoylshikimic Acid

Item No. 45453

CAS Registry No.: 73263-62-4
Formal Name: (3R,4R,5R)-5-[[3-(3,4-dihydroxyphenyl)-1-oxo-2-propenyl]oxy]-3,4-dihydroxy-1-cyclohexene-1-carboxylic acid
Synonym: 5OCSA
MF: C₁₆H₁₆O₈
FW: 336.3
Purity: ≥98%
Supplied as: A solid
Storage: -20°C
Stability: ≥4 years



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

Laboratory Procedures

5-O-Caffeoylshikimic acid is supplied as a solid. A stock solution may be made by dissolving the 5-O-caffeoylshikimic acid in the solvent of choice, which should be purged with an inert gas. 5-O-Caffeoylshikimic acid is slightly soluble (0.1-1 mg/ml) in DMSO.

Description

5-O-Caffeoylshikimic acid is a polyphenol originally isolated from *P. aquilinum* that has diverse biological activities.^{1,2,3} It inhibits xanthine oxidase (XO) in a cell-free assay (IC₅₀ = 13.96 μM).² *In vivo*, 5-O-caffeoylshikimic acid decreases serum uric acid, serum creatinine, and blood urea nitrogen levels, renal TNF-α, IL-1β, IL-6, and IL-18 levels, and renal tubular dilation in a mouse model of hyperuricemia induced by potassium oxonate (oxonic acid; Item No. 22586) and hypoxanthine (Item No. 22254). 5-O-Caffeoylshikimic acid is active against *S. aureus* (MIC = 372 μM).³

References

1. Fukuoka, M. Chemical and toxicological studies on bracken fern, *Pteridium aquilinum* var. *latiusculum*. VI. Isolation of 5-O-caffeoylshikimic acid as an antithiamine factor. *Chem. Pharm. Bull.* **30**(9), 3219-3224 (1982).
2. Zhang, D., Zhao, M., Li, Y., et al. Natural xanthine oxidase inhibitor 5-O-caffeoylshikimic acid ameliorates kidney injury caused by hyperuricemia in mice. *Molecules* **26**(23), 7307 (2021).
3. Khaligh, P., Salehi, P., Farimani, M. M., et al. Bioactive compounds from *Smilax excelsa* L. J. *Iran Chem. Soc.* **13**, 1055-1059 (2016).

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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