

PRODUCT INFORMATION

Artepillin C

Item No. 35666

CAS Registry No.: 72944-19-5

Formal Name: 3-[4-hydroxy-3,5-bis(3-methyl-2-buten-1-yl)phenyl]-2-propenoic acid

Synonyms: 3,5-Diprenyl-4-hydroxy Cinnamic Acid,
3,5-Diprenyl-*p*-hydroxy Cinnamic Acid,
3,5-Diprenyl-*para*-hydroxy Cinnamic Acid,
3,5-Diprenyl-4-Coumaric Acid,
3,5-Diprenyl-*p*-Coumaric Acid,
3,5-Diprenyl-*para*-Coumaric Acid

MF: C₁₉H₂₄O₃

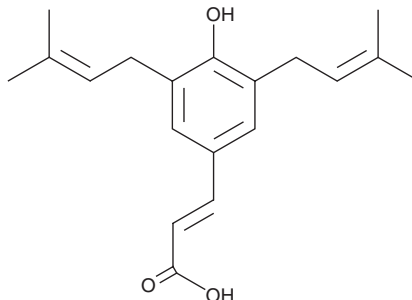
FW: 300.4

Purity: ≥95%

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

Artepillin C is supplied as a solid. A stock solution may be made by dissolving the artepillin C in the solvent of choice, which should be purged with an inert gas. Artepillin C is soluble in acetonitrile and DMSO.

Description

Artepillin C is a prenylated cinnamic acid that has been found in *B. grisebachii* and has diverse biological activities.¹⁻⁶ It selectively inhibits aldo-keto reductase 1C3 (AKR1C3; IC₅₀ = 1 μM), also known as prostaglandin F synthase, over AKR1C1, AKR1C2, and AKR1C4 at 100 μM.¹ It also inhibits lipid peroxidation in isolated human erythrocytes.² Artepillin C (10 μM) induces calcium influx in HEK293T cells expressing human transient receptor potential ankyrin 1 (TRPA1), an effect that can be blocked by the TRPA1 inhibitor HC-030031 (Item No. 11923).³ It is cytotoxic to HT-1080 fibrosarcoma and 26-L5 colon cancer cells (IC₅₀s = 45.47 and 59.32 μg/ml, respectively).⁶ Artepillin C is active against *C. albicans*, *E. floccosum*, *T. rubrum*, methicillin-sensitive *S. aureus*, and methicillin-resistant *S. aureus* (MRSA; MICs = 250, 50, 125, 250, and 250 μg/ml, respectively).⁴ *In vivo*, artepillin C (1 and 10 mg/kg) decreases carrageenan-induced peritoneal leukocyte infiltration in mice.⁵

References

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- Tapia, A., Rodriguez, J., Theoduloz, C., et al. Free radical scavengers and antioxidants from *Baccharis grisebachii*. *J. Ethnopharmacol.* **95**(2-3), 155-161 (2004).
- Hata, T., Tazawa, S., Ohta, S., et al. Artepillin C, a major ingredient of Brazilian propolis, induces a pungent taste by activating TRPA1 channels. *PLoS One* **7**(11), e48072 (2012).
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- Paulino, N., Abreu, S.R., Uto, Y., et al. Anti-inflammatory effects of a bioavailable compound, Artepillin C, in Brazilian propolis. *Eur. J. Pharmacol.* **587**(1-3), 296-301 (2008).
- Banskota, A.H., Tezuka, Y., Prasain, J.K., et al. Chemical constituents of brazilian propolis and their cytotoxic activities. *J. Nat. Prod.* **61**(7), 896-900 (1998).

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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