

PRODUCT INFORMATION

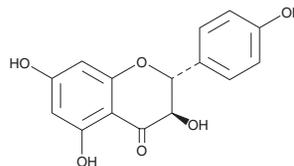


Aromadendrin

Item No. 33402

CAS Registry No.: 480-20-6
Formal Name: (2R,3R)-2,3-dihydro-3,5,7-trihydroxy-2-(4-hydroxyphenyl)-4H-1-benzopyran-4-one
Synonyms: (+)-Aromadendrin, (+)-Dihydrokaempferol, Dihydrokaempferol, *trans*-Dihydrokaempferol

MF: C₁₅H₁₂O₆
FW: 288.3
Purity: ≥98%
UV/Vis.: λ_{max}: 214, 292 nm
Supplied as: A crystalline solid
Storage: -20°C
Stability: ≥4 years
Item Origin: Plant/*Kaempferia galanga*



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

Laboratory Procedures

Aromadendrin is supplied as a crystalline solid. A stock solution may be made by dissolving the aromadendrin in the solvent of choice, which should be purged with an inert gas. Aromadendrin is soluble in the organic solvent DMSO at a concentration of approximately 10 mM.

Description

Aromadendrin is a flavone that has been found in *J. chinensis* and has diverse biological activities.¹⁻⁴ It scavenges DPPH (Item No. 14805) radicals (IC₅₀ = 2.21 μM) and inhibits acetylcholinesterase (AChE; IC₅₀ = 35.43 μM), but not butyrylcholinesterase (BChE) and β-secretase 1 (BACE1; IC₅₀s = >200 μM), in cell-free assays.^{1,2} Aromadendrin inhibits the growth of BT474 breast, ChaGo-K-1 lung, HepG2 liver, KATO III gastric, and SW620 colon cancer cells (IC₅₀s = 11.66, 12.32, 13.67, 39.79, and 41.11 μM, respectively).¹ It prevents cytokine production in anti-CD3 and anti-CD28-stimulated T cells in a concentration-dependent manner.³ Aromadendrin reduces pancreatic damage in a mouse model of caerulein and LPS-induced severe acute pancreatitis in a dose-dependent manner.⁴

References

1. Chunhakant, S. and Chaicharoenpong, C. Antityrosinase, antioxidant, and cytotoxic activities of phytochemical constituents from *Manilkara zapota* L. bark. *Molecules* **24**(15), 2798 (2019).
2. Jung, H.J., Jung, H.A., Min, B.-S., et al. Anticholinesterase and β-site amyloid precursor protein cleaving enzyme 1 inhibitory compounds from the heartwood of *Juniperus chinensis*. *Chem. Pharm. Bull. (Tokyo)* **63**(11), 955-960 (2015).
3. Lee, H.-S. and Jeong, G.-S. Aromadendrin inhibits T cell activation via regulation of calcium influx and NFAT activity. *Molecules* **25**(19), 4590 (2020).
4. Liang, X., Hu, C., Liu, C., et al. Dihydrokaempferol (DHK) ameliorates severe acute pancreatitis (SAP) via Keap1/Nrf2 pathway. *Life Sci.* **261**, 118340 (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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