

PRODUCT INFORMATION

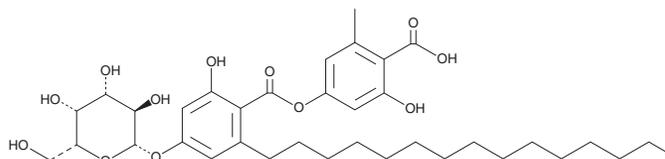


Aquastatin A

Item No. 33253

CAS Registry No.: 153821-50-2
Formal Name: 4-(β-D-galactopyranosyloxy)-2-hydroxy-6-pentadecyl-benzoic acid, 4-carboxy-3-hydroxy-5-methylphenyl ester

MF: C₃₆H₅₂O₁₂
FW: 676.8
Purity: ≥95%
UV/Vis.: λ_{max}: 267 nm
Supplied as: A solid
Storage: -20°C
Stability: ≥4 years
Item Origin: Fungus/Unidentified sp.



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

Laboratory Procedures

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

Description

Aquastatin A is a fungal metabolite originally isolated from *F. aquaeductuum* that has diverse biological activities.¹ It is active against *S. aureus* (MIC = 32 μg/ml) and inhibits enoyl-acyl carrier protein reductase (FabI; IC₅₀ = 3.2 μM) and *S. aureus* fatty acid synthesis (IC₅₀ = 3.5 μM).² Aquastatin A also inhibits the Na⁺/K⁺-ATPase and H⁺/K⁺-ATPase (IC₅₀s = 7.1 and 6.2 μM, respectively), as well as protein tyrosine phosphatase 1B (PTP1B; IC₅₀ = 0.19 μM).^{1,3}

References

1. Hamano, K., Kinoshita-Okami, M., Minagawa, K., *et al.* Aquastatin A, an inhibitor of mammalian adenosine triphosphatases from *Fusarium aquaeductuum*. Taxonomy, fermentation, isolation, structure determination and biological properties. *J. Antibiot. (Tokyo)* **46(11)**, 1648-1657 (1993).
2. Kwon, Y.-J., Fang, Y., Xu, G.-H., *et al.* Aquastatin A, a new inhibitor of enoyl-acyl carrier protein reductase from *Sporothrix* sp. FN611. *Biol. Pharm. Bull.* **32(12)**, 2061-2064 (2009).
3. Seo, C., Soh, J.H., Oh, H., *et al.* Isolation of the protein tyrosine phosphatase 1B inhibitory metabolite from the marine-derived fungus *Cosmospora* sp. SF-5060. *Bioorg. Med. Chem. Lett.* **19(21)**, 6095-6097 (2009).

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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