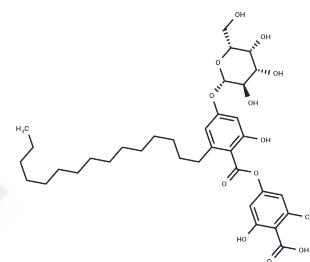


Aquastatin A

Chemical Properties

CAS No. :	153821-50-2
Formula:	C ₃₆ H ₅₂ O ₁₂
Molecular Weight:	676.8
Storage:	Powder: -20°C for 3 years In solvent: -80°C for 1 year Actual storage temperature shall be subject to the COA.



Biological Description

Description	Aquastatin A is a fungal metabolite originally isolated from <i>F. aquaeductuum</i> that has diverse biological activities. It is active against <i>S. aureus</i> (MIC = 32 µg/ml) and inhibits enoyl-acyl carrier protein reductase (FabI; IC ₅₀ = 3.2 µM) and <i>S. aureus</i> fatty acid synthesis (IC ₅₀ = 3.5 µM). Aquastatin A also inhibits the Na ⁺ /K ⁺ -ATPase and H ⁺ /K ⁺ -ATPase (IC ₅₀ s = 7.1 and 6.2 µM, respectively), as well as protein tyrosine phosphatase 1B (PTP1B; IC ₅₀ = 0.19 µM). ^{1,3}
Targets(IC ₅₀)	Others

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	1.4775 mL	7.3877 mL	14.7754 mL
5 mM	0.2955 mL	1.4775 mL	2.9551 mL
10 mM	0.1478 mL	0.7388 mL	1.4775 mL
50 mM	0.0296 mL	0.1478 mL	0.2955 mL

Please select the appropriate solvent to prepare the stock solution, according to the solubility of the product in different solvents. Please use it as soon as possible.

Note: The dilution table applies only to solid products. For liquid products, please calculate the stock solution based on the stated concentration and/or density.

Reference

- 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)
- 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)
- 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)

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