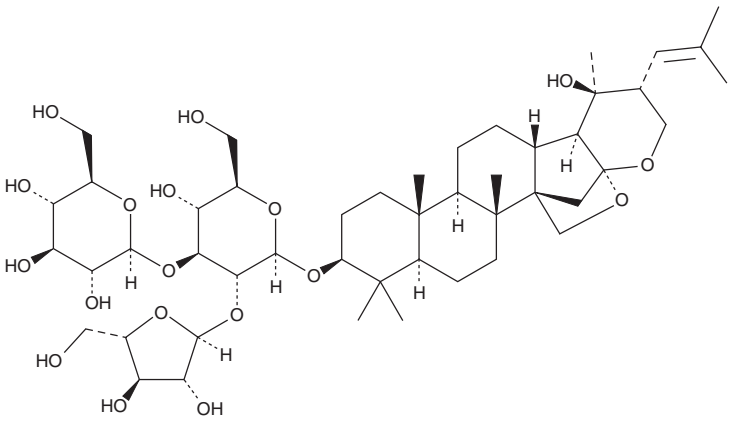
PRODUCT INFORMATION

Bacopaside II

Item No. 11822



CAS Registry No.: 382146-66-9
Formal Name: (1S,2R,4aR,6aS,6bR,8aR,10S,12aR,12bR,14aR,14bS)-hexadecahydro-1-hydroxy-1,6b,9,9,12a-pentamethyl-2-(2-methyl-1-propen-1-yl)-4a,6a-methano-1H,6H-phenanthro[2,1-d]pyrano[2,3-b]pyran-10-yl O-α-L-arabinofuranosyl-(1→2)-O-[β-D-glucopyranosyl-(1→3)]-β-D-glucopyranoside
MF: $C_{47}H_{76}O_{18}$
FW: 929.1
Purity: ≥95%
Supplied as: A crystalline solid
Storage: -20°C
Stability: ≥4 years
Item Origin: Plant/*Bacopa monnieri* (L.)

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

Laboratory Procedures

Bacopaside II is supplied as a crystalline solid. A stock solution may be made by dissolving the bacopaside II in the solvent of choice, which should be purged with an inert gas. Bacopaside II is soluble in the methanol.

Description

Bacopaside II is a triterpene glycoside found in *B. monnieri* that has neuroprotective, anti-angiogenic, and anticancer activities.[1-4] Bacopaside II (0.4 mg/ml) decreases hydrogen peroxide-induced intracellular reactive oxygen species (ROS) production and cell death in N2a neuroblastoma cells.[1] It decreases immobility time in the forced swim and tail suspension tests in mice, indicating anti-depressant like activity, when administered at a dose of 50 mg/kg.[2] Bacopaside II decreases migration and tube formation in 2H11 and 3B11 cells, as well as human umbilical vein endothelial cells (HUVECs) when used at concentrations greater than 15 µM.[3] Bacopaside II inhibits the growth of MDA-MB-231, SHG-44, HCT8, A549, and PC3M cancer cells (IC_{50}s = 32.4, 36.9, 40.3, 44.4, and 45.4 µM, respectively).[4]

References

1. Bhardwaj, P., Jain, C.K., and Mathur, A. Comparative evaluation of four triterpenoid glycoside saponins of bacoside A in alleviating sub-cellular oxidative stress of N2a neuroblastoma cells. *J. Pharm. Pharmacol.* **70(11)**, 1531-1540 (2018).
2. Zhou, Y., Shen, Y.-H., Zhang, C., *et al.* Triterpene saponins from *Bacopa monnieri* and their antidepressant effects in two mice models. *J. Nat. Prod.* **70(4)**, 652-655 (2007).
3. Palethorpe, H.M., Tomita, Y., Smith, E., *et al.* The aquaporin 1 inhibitor bacopaside II reduces endothelial cell migration and tubulogenesis and induces apoptosis. *Int. J. Mol. Sci.* **19(3)**, E653 (2018).
4. Peng, L., Zhou, Y., Kong, D.Y., *et al.* Antitumor activities of dammarane triterpene saponins from *Bacopa monniera*. *Phytother. Res.* **24(6)**, 864-868 (2010).

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