

# PRODUCT INFORMATION



## Bacopasaponin C

Item No. 11820

**CAS Registry No.:** 178064-13-6  
**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- $\alpha$ -L-arabinofuranosyl-(1 $\rightarrow$ 2)-O-[ $\beta$ -D-glucopyranosyl-(1 $\rightarrow$ 3)]- $\alpha$ -L-arabinopyranoside

**Synonym:** (-)-Bacopasaponin C

**MF:** C<sub>46</sub>H<sub>74</sub>O<sub>17</sub>

**FW:** 899.1

**Purity:**  $\geq$ 95%

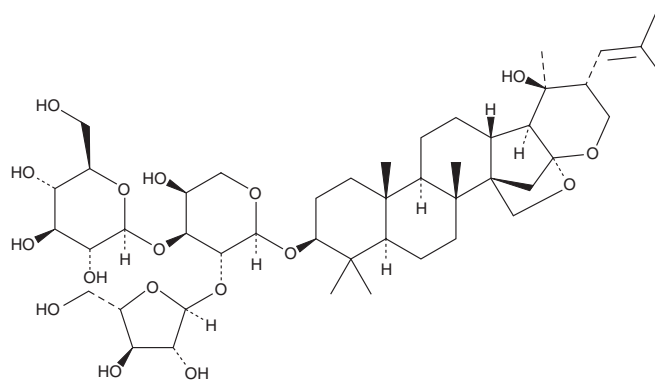
**Supplied as:** A crystalline solid

**Storage:** -20°C

**Stability:**  $\geq$ 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

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

### Description

Bacopasaponin C is a triterpenoid saponin originally isolated from *B. monnieri* that has diverse biological activities.<sup>1-3</sup> It inhibits the ATPase activity of P-glycoprotein (IC<sub>50</sub> = 57.83  $\mu$ g/ml).<sup>4</sup> Bacopasaponin C inhibits scopolamine-induced impairments in spatial memory in the Morris water maze and memory retrieval in the step-down test in mice when administered at a dose of 50 mg/kg.<sup>1</sup> It also decreases the time mice spent immobile in the forced swim and tail suspension tests, indicating antidepressant-like activity.<sup>2</sup> Bacopasaponin C reduces the spleen parasite load in a hamster model of leishmaniasis when administered as a free compound or in liposomal, niosomal, microencapsulated, or nanocapsulated forms.<sup>3</sup>

### References

1. Zhou, Y., Peng, L., Zhang, W.-D., *et al.* Effect of triterpenoid saponins from *Bacopa monnieri* on scopolamine-induced memory impairment in mice. *Planta Med.* **75(6)**, 568-574 (2009).
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. Sinha, J., Raay, B., Das, N., *et al.* Bacopasaponin C: Critical evaluation of anti-leishmanial properties in various delivery modes. *Drug Deliv.* **9(1)**, 55-62 (2002).
4. Singh, R., Rachumallu, R., Bhateria, M., *et al.* *In vitro* effects of standardized extract of *Bacopa monnieri* and its five individual active constituents on human P-glycoprotein activity. *Xenobiotica* **45(8)**, 741-749 (2015).

#### 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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