

## Bacopaside X

## Chemical Properties

CAS No. : 94443-88-6

Formula: C<sub>46</sub>H<sub>74</sub>O<sub>17</sub>

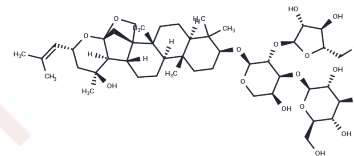
Molecular Weight: 899.07

Keep away from moisture, Keep away from direct sunlight

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	Bacopaside X is a triterpenoid saponin isolated from <i>Bacopa monniera</i> that exhibits strong antifungal and anticancer activities by actively suppressing pathogenic fungal growth and tumor progression, demonstrated through inhibition of <i>Candida albicans</i> , <i>Cryptococcus neoformans</i> , and <i>Aspergillus fumigatus</i> at MIC values of 50 µg/ml, along with significantly decreasing proliferation in cancer cell lines MDA-MB-231, SHG44, HCT8, A549, and PC3M with IC <sub>50</sub> values of 14.3, 15.9, 9.8, 9.7, and 10.1 µM respectively. Bacopaside X additionally reduces tumor growth by 84.13% in an S180 sarcoma mouse allograft model when administered at a dose of 50 µmol/kg, indicating substantial therapeutic potential.
Targets(IC <sub>50</sub> )	Antifungal
In vitro	Bacopaside X was tested using in vitro radioligand receptor binding assays (with <sup>3</sup> H-SCH 23390 as the ligand), showing its binding affinity for the dopamine D1 receptor (K <sub>i</sub> value of 9.06 µM) but no inhibitory activity against acetylcholinesterase (AChE) [1].

## Solubility Information

Solubility	DMSO: 80 mg/mL (88.98 mM), Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)
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### Preparing Stock Solutions

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	<b>1mg</b>	<b>5mg</b>	<b>10mg</b>
1 mM	1.1123 mL	5.5613 mL	11.1226 mL
5 mM	0.2225 mL	1.1123 mL	2.2245 mL
10 mM	0.1112 mL	0.5561 mL	1.1123 mL
50 mM	0.0222 mL	0.1112 mL	0.2225 mL

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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

In Silico and In Vitro Analysis of Bacoside A Aglycones and Its Derivatives as the Constituents Responsible for the Cognitive Effects of Bacopa monnieri. PLoS One. 2015 May 12;10(5):e0126565.

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