

# PRODUCT INFORMATION



## Stephacidin B

Item No. 31656

CAS Registry No.: 360765-75-9

Formal Name: (7cS,7dR,15aS,16aS,21aR,21bR,22R,22aR,27aS,28aS)-1,4,7c,11,15,15a,16,18,19,26,27,28,28a,29-tetradecahydro-1-hydroxy-4,4,11,11,15,15,29,29-octamethyl-17H,21H,21bH,25H-21a,16a-(lminomethano)-22,27a-methano-23H-diindolizino[6,7-a:7',6'-j]bispyrano[2',3':6,7]indolo[2,3-d:3',2'-g]carbazole-21,23,30,32-tetrone, 14-oxide

Synonym: (-)-Stephacidin B

MF:  $C_{52}H_{54}N_6O_8$

FW: 891.0

Purity:  $\geq 95\%$

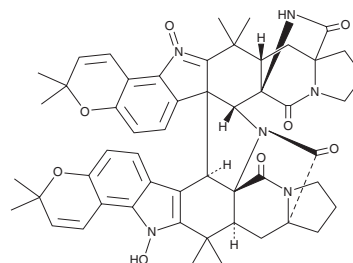
UV/Vis.:  $\lambda_{max}$ : 244 nm

Supplied as: A solid

Storage:  $-20^{\circ}\text{C}$

Stability:  $\geq 4$  years

Item Origin: Fungus/*Aspergillus* sp.



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

### Laboratory Procedures

Stephacidin B is supplied as a solid. A stock solution may be made by dissolving the stephacidin B in the solvent of choice, which should be purged with an inert gas. Stephacidin B is soluble in methanol and DMSO.

### Description

Stephacidin B is a fungal metabolite that has been found in *A. ochraceus*.<sup>1</sup> Dimeric stephacidin B is rapidly converted to a monomer, avrainvillamide (Item No. 31655), *in vitro*.<sup>2</sup> Stephacidin B is cytotoxic to a variety of cancer cells, including testosterone-independent PC3 and -sensitive LNCaP prostate cancer cells ( $IC_{50}$ s = 0.37 and 0.06  $\mu\text{M}$ , respectively) and estradiol-independent SK-BR-3 and -sensitive MCF-7 breast cancer cells ( $IC_{50}$ s = 0.32 and 0.27  $\mu\text{M}$ , respectively).<sup>1</sup> It induces apoptosis in HepG2 and Huh7 hepatocellular carcinoma cells when used at a concentration of 4  $\mu\text{M}$ .<sup>3</sup>

### References

1. Qian-Cutrone, J., Huang, S., Shu, Y.-Z., *et al.* Stephacidin A and B: Two structurally novel, selective inhibitors of the testosterone-dependent prostate LNCaP cells. *J. Am. Chem. Soc.* **124**(49), 14556-14557 (2002).
2. Wulff, J.E., Herzon, S.B., Siegrist, R., *et al.* Evidence for the rapid conversion of stephacidin B into the electrophilic monomer avrainvillamide in cell culture. *J. Am. Chem. Soc.* **129**(16), 4898-4899 (2007).
3. Hu, L., Zhang, T., Liu, D., *et al.* Notoamide-type alkaloid induced apoptosis and autophagy via a P38/JNK signaling pathway in hepatocellular carcinoma cells. *RSC Adv.* **9**(34), 19855-19868 (2019).

#### 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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