



PALYTOXIN

From *Palythoa caribaeorum*

Product Number **P 4954**

Storage Temperature -0 °C

CAS #: 11077-03-5

Product Description

Palytoxin is a potent smooth muscle spasmogen.^{1,2} It is described as a nonphorbol tumor promoter.^{3,4} Other activities reported include stimulation of prostaglandin production,^{3,4} hormone release,^{5,6} and bone resorption,⁵ and induction of ionic channeling and membrane depolarization.^{7,8} The toxin inhibits sodium- and potassium-activated adenosine triphosphatase,^{9,10} but does not inhibit gastric H⁺,K⁺- adenosine triphosphatase.¹¹ Palytoxin inhibits protein synthesis and activates protein kinases.¹²⁻¹⁵

Preparation Instructions

Material may be dissolved in 0.3-1.0% acetic acid at 1-10 mg/ml. Solutions may be stored refrigerated for 3-6 months.

Soluble in water, pyridine, DMSO, and acidic aqueous solutions. Stock solutions prepared in DMSO should be prepared so the final concentration of DMSO in the application is not more than 0.2% (v/v).¹³

Storage/Stability

Light sensitive

Store in dark below 0 °C.

Product Information

References

1. Posangi, J., *Toxicon*, **32**, 965 (1994)
2. Amir, I., et al. *J. Neurocytol.*, **26**,367 (1997)
3. Wattenburg, E. V., et al., *Cancer Res.*, **49**, 5837 (1989)
4. Bonnard, C., et al., *Carcinogenesis*, **9**, 2245 (1988)
5. Lazzaro, M., et al., *Endocrinology*, **120**, 1338 (1987)
6. Nagase, H., and Karaki, H., *J. Pharmacol. Exp. Ther.*, **242**,1120 (1987)
7. Lauffer, L., et al., *Biochim. Biophys. Acta*, **818**, 55(1985)
8. Muramatsu, I., et al., *Br. J. Pharmacol.*, **93**, 811 (1988)
9. Grell, E., et al., *Prog. Clin. Biol. Res.*, **286B**, 393 (1988)
10. Ozaki, H., et al., *Eur. J. Biochem.*, **152**, 475 (1985)
11. Farley, R. A., et al., *J. Biol. Chem.*, **276**, 2608 (2001).
12. Kuroki, D. W., et al. *Cancer Res.*, **56**, 637 (1996).
13. Iordanov, M. S., et al., *J. Biol. Chem.* **273**, 3528 (1998).
14. Li, S., and Wattenburg, E. V., *Toxicol. Appl. Pharmacol.*, **151**, 377 (1998).
15. Li, S., and Wattenburg, E. V., *Toxicol. Appl. Pharmacol.*, **160**, 377 (1999).

JWM 4/5/01

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