

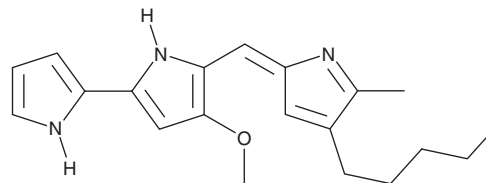
# PRODUCT INFORMATION



## Prodigiosin

Item No. 19464

**CAS Registry No.:** 82-89-3  
**Formal Name:** 4-methoxy-5-[(5-methyl-4-pentyl-2H-pyrrol-2-ylidene)methyl]-2,2'-bi-1H-pyrrole  
**Synonyms:** BRN 4526727, NSC 47147  
**MF:** C<sub>20</sub>H<sub>25</sub>N<sub>3</sub>O  
**FW:** 323.4  
**Purity:** ≥95%  
**Supplied as:** A solid  
**Storage:** -20°C  
**Stability:** ≥3 years  
**Special Conditions:** Protect from light



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

### Laboratory Procedures

Prodigiosin is supplied as a solid. A stock solution may be made by dissolving the prodigiosin in the solvent of choice. Prodigiosin is soluble in organic solvents such as methanol, ethanol, and acetonitrile.

### Description

Prodigiosin is a natural red bacterial pigment that has antibiotic, antitumor, and immunosuppressant properties.<sup>1</sup> It blocks T cell proliferation at a concentration of 30 ng/ml, by interfering with IL-2 receptor expression.<sup>2</sup> Prodigiosin induces apoptosis in cancer cells by diverse mechanisms and rescues deficient p53 signaling.<sup>3-5</sup> Prodigiosin derivatives can uncouple vacuolar H<sup>+</sup>-ATPase and inhibit osteoclast function.<sup>6</sup> Prodigiosin is cytolytic against the red tide dinoflagellate *Cochlodinium* at very low concentrations (1 ppb), suggesting an application in controlling algal blooms.<sup>1</sup>

### References

1. Kim, D., Kim, J.F., Yim, J.-H., et al. *J. Microbiol. Biotechnol.* **18(10)**, 1621-1629 (2008).
2. Han, S.B., Park, S.H., Jeon, Y.J., et al. *J. Pharmacol. Exp. Ther.* **299(2)**, 415-425 (2001).
3. Soto-Cerrato, V., Viñals, F., Lambert, J.R., et al. *Mol. Cancer Ther.* **6(1)**, 362-369 (2016).
4. Hong, B., Prabhu, V.V., Zhang, S., et al. *Cancer Res.* **74(4)**, 1153-1165 (2014).
5. Hosseini, A., Espona-Fiedler, M., Soto-Cerrato, V., et al. *PLoS One* **8(2)**, (2013).
6. Woo, J.T., Yonezawa, T., Cha, B.Y., et al. *J. Pharmacol. Sci.* **106(4)**, 547-554 (2008).

#### 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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