

Product Name:	Prodigiosin
Product Number:	P094
CAS Number:	82-89-3
Molecular Formula:	$C_{20}H_{25}N_3O$
Molecular Weight:	323.4
Appearance:	Dark red solid
Storage Conditions:	-20°C
Description:	Prodigiosin is an intensely red pyrrole pigment produced by several bacteria, most notably <i>Serratia marcescens</i> . Prodigiosin has a broad biological profile with activity against fungi, tumor cell lines and malaria. It was shown to be an immunosuppressant in 2007.
Mechanism of Action:	Prodigiosin is soluble in ethanol, methanol, DMF and DMSO. Prodigiosin acts via caspase inhibition to induce of apoptosis in human primary cancer cells. Prodigiosin also acts as an inducer of p21WAF1/CIP1 expression via transforming growth factor- β receptor pathway, and activates NAG-1 via glycogen synthase kinase-3 β .
References:	Seeing red: The story of prodigiosin. Bennett J.W. & Bentley R., Adv. Appl. Microbiol. 2000, 47, 1. Prodigiosin induces apoptosis of B and T cells from B-cell chronic lymphocytic leukemia. Campas C. et al. , Leukemia 2003, 17, 746. Prodigiosin: a novel family of immunosuppressants with anti-cancer activity. Pandey R. et al. , Indian J. Biochem. Biophys. 2007, 44, 295. Prodigiosin: a novel family of immunosuppressants with anti-cancer activity. Pandey R. et al. , Indian J. Biochem. Biophys. 2007, 44, 295. Prodigiosin induces the proapoptotic gene NAG-1 via glycogen synthase kinase-3 β activity in human breast cancer cells. Soto-Cerrato V. et al. , Mol. Cancer Ther. 2007, 6, 362. Proteomic analysis of prodigiosin-induced apoptosis in a breast cancer mitoxantrone-resistant (MCF-7 MR) cell line. Monge M. et al. , Invest. New Drugs 2007, 25, 21.