

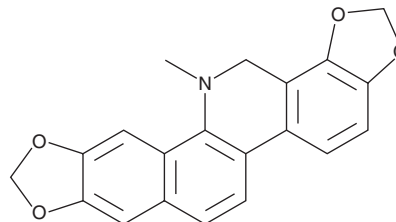
# PRODUCT INFORMATION



## Dihydrosanguinarine

Item No. 31139

**CAS Registry No.:** 3606-45-9  
**Formal Name:** 13,14-dihydro-13-methyl-[1,3]benzodioxolo[5,6-c]-1,3-dioxolo[4,5-i]phenanthridine  
**Synonym:** DHSA  
**MF:** C<sub>20</sub>H<sub>15</sub>NO<sub>4</sub>  
**FW:** 333.3  
**Purity:** ≥98%  
**Supplied as:** A crystalline solid  
**Storage:** -20°C  
**Stability:** ≥4 years  
**Item Origin:** Plant/*Macleaya cordata* (Willd.) R. Br.



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

### Laboratory Procedures

Dihydrosanguinarine is supplied as a crystalline solid. A stock solution may be made by dissolving the dihydrosanguinarine in the solvent of choice, which should be purged with an inert gas. Dihydrosanguinarine is soluble in the organic solvent DMSO at a concentration of approximately 5 mg/ml.

### Description

Dihydrosanguinarine is an alkaloid and a metabolite of the alkaloid sanguinarine (Item No. 16951) that has diverse biological activities.<sup>1</sup> It inhibits proliferation of PANC-1, SW 1990, and HPDE6c7 cancer cells when used at concentrations of 10, 20, and 30 μM.<sup>1</sup> It also reduces the levels of phosphorylated ERK and C-RAF, halts the cell cycle at the G<sub>0</sub>/G<sub>1</sub> and G<sub>2</sub>/M phases, and induces apoptosis in PANC-1 cells.

### Reference

1. Wu, S.-Z., Xu, H.-C., Wu, X.-L., et al. Dihydrosanguinarine suppresses pancreatic cancer cells via regulation of mut-p53/WT-p53 and the Ras/Raf/Mek/Erk pathway. *Phytomedicine* **59**, 152895 (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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