

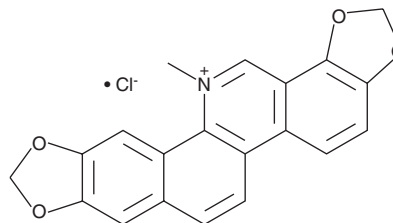
# PRODUCT INFORMATION



## Sanguinarine (chloride)

Item No. 16951

**CAS Registry No.:** 5578-73-4  
**Formal Name:** 13-methyl-[1,3]benzodioxolo[5,6-c]-1,3-dioxolo[4,5-i]phenanthridinium, monochloride  
**MF:** C<sub>20</sub>H<sub>14</sub>NO<sub>4</sub> • Cl  
**FW:** 367.8  
**Purity:** ≥98%  
**UV/Vis.:** λ<sub>max</sub>: 216, 235, 276, 328, 402, 472 nm  
**Supplied as:** A crystalline solid  
**Storage:** -20°C  
**Stability:** ≥4 years



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

### Laboratory Procedures

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

### Description

Sanguinarine is a benzyloquinoline alkaloid isolated from plants belonging to the family *Papaveraceae*.<sup>1</sup> It exhibits antimicrobial, anti-inflammatory, and anti-oxidant properties and demonstrates antiproliferative and pro-apoptotic effects in some cancer cell lines. Sanguinarine suppresses NF-κB activation by blocking the degradation of IκBα and sensitizes cancer cells to apoptosis by inducing ROS generation and activating TNF-related apoptosis-inducing ligand.<sup>2</sup> Furthermore, sanguinarine has been shown to reduce cancer cell metastasis through the inhibition of MMP-2 and MMP-9 activation and to exhibit antiangiogenic activity by downregulating VEGF-induced Akt activation.<sup>2</sup>

### References

1. Ziegler, J. and Facchini, P.J. Alkaloid biosynthesis: Metabolism and trafficking. *Annu. Rev. Plant Biol.* **59**, 735-769 (2008).
2. Gupta, S.C., Kim, J.H., Prasad, S., *et al.* Regulation of survival, proliferation, invasion, angiogenesis, and metastasis of tumor cells through modulation of inflammatory pathways by nutraceuticals. *Cancer Metastasis Rev.* **29(3)**, 405-434 (2010).

#### 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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