

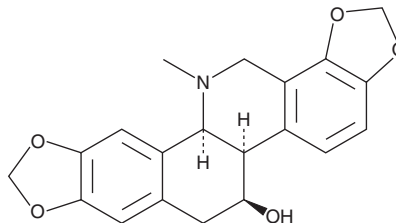
# PRODUCT INFORMATION



## Chelidonine

Item No. 25097

**CAS Registry No.:** 476-32-4  
**Formal Name:** 5bR,6S,7,12bS,13,14-hexahydro-13-methyl-[1,3]benzodioxolo[5,6-c]-1,3-dioxolo[4,5-i]phenanthridin-6-ol  
**MF:** C<sub>20</sub>H<sub>19</sub>NO<sub>5</sub>  
**FW:** 353.4  
**Purity:** ≥98%  
**UV/Vis.:** λ<sub>max</sub>: 241, 290 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

Chelidonine is supplied as a crystalline solid. A stock solution may be made by dissolving the chelidonine in the solvent of choice, which should be purged with an inert gas. Chelidonine is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide. The solubility of chelidonine in these solvents is approximately 30 mg/ml.

### Description

Chelidonine is a benzophenanthridine alkaloid that has been isolated from *C. majus*.<sup>1,2</sup> It induces Bcl-2- and caspase-dependent apoptosis in HepG2 human liver carcinoma cells with an LC<sub>50</sub> value of 12 μM and in Jurkat human T cells when used at a concentration of 1 μM.<sup>1,3</sup> Chelidonine also downregulates hTERT expression in HepG2 cells, reduces telomerase activity, and induces cell senescence.<sup>1</sup>

### References

1. Noureini, S.K. and Wink, M. Transcriptional down regulation of hTERT and senescence induction in HepG2 cells by chelidonine. *World J. Gastroenterol.* **15(29)**, 3603-3610 (2009).
2. Och, A., Szewczyk, K., Pecio, Ł., et al. UPLC-MS/MS profile of alkaloids with cytotoxic properties of selected medicinal plants of the *Berberidaceae* and *Papaveraceae* families. *Oxid. Med. Cell. Longev.* **2017:9369872** (2017).
3. Habermehl, D., Kammerer, B., Handrick, R., et al. Proapoptotic activity of Ukrain is based on *Chelidonium majus* L. alkaloids and mediated via a mitochondrial death pathway. *BMC Cancer* **6:14** (2006).

#### 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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