

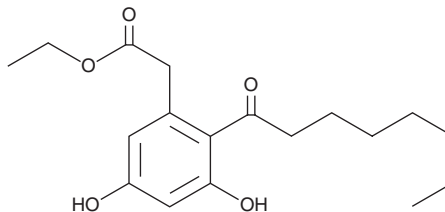
# PRODUCT INFORMATION



## Cytosporone B

Item No. 17501

**CAS Registry No.:** 321661-62-5  
**Formal Name:** 3,5-dihydroxy-2-(1-oxooctyl)-benzeneacetic acid, ethyl ester  
**Synonyms:** Csn-B, Dothiorelone G  
**MF:** C<sub>18</sub>H<sub>26</sub>O<sub>5</sub>  
**FW:** 322.4  
**Purity:** ≥95%  
**UV/Vis.:** λ<sub>max</sub>: 220, 270, 300 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

Cytosporone B is supplied as a crystalline solid. A stock solution may be made by dissolving the cytosporone B in the solvent of choice. Cytosporone B is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide (DMF), which should be purged with an inert gas. The solubility of cytosporone B in ethanol and DMSO is approximately 30 mg/ml and approximately 50 mg/ml in DMF.

Cytosporone B is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, cytosporone B should first be dissolved in DMF and then diluted with the aqueous buffer of choice. Cytosporone B has a solubility of approximately 0.5 mg/ml in a 1:1 solution of DMF:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

### Description

Cytosporone B is a naturally occurring agonist for the nuclear receptor Nur77 (IC<sub>50</sub> = 0.278 nM).<sup>1</sup> Activation of Nur77 with cytosporone B induces the expression of Nur77-dependent genes, including the gene for Nur77 itself.<sup>1</sup> Signaling through Nur77 induces apoptosis in cancer cells and retards xenograft tumor growth.<sup>1</sup> It also induces genes related to gluconeogenesis and decreases atherosclerosis progression in mice fed a high fat and high cholesterol diet.<sup>1,2</sup> Cytosporone B is brain penetrant and aggravates early brain injury in rats when given (13 mg/kg intraperitoneally) after experimentally-induced subarachnoid hemorrhage.<sup>3</sup> Cytosporone B also has antibacterial properties.<sup>4,5</sup>

### References

1. Zhan, Y., Du, X., Chen, H., *et al.* *Nat. Chem. Biol.* **4**, 548-556 (2008).
2. Hu, Y.-W., Zhang, P., Yang, J.-Y., *et al.* *PLoS One* **9**(1), 1-12 (2014).
3. Dai, Y., Zhang, W., Sun, Q., *et al.* *J. Neurosci. Res.* **92**, 1110-1121 (2015).
4. Beau, J., Mahid, N., Burda, W.N., *et al.* *Mar. Drugs* **10**(4), 762-774 (2012).
5. Li, J., Lv, C., Sun, W., *et al.* *Antimicrob. Agents Chemother.* **57**(5), 2191-2198 (2013).

#### 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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