

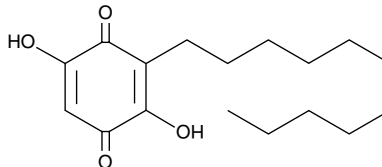
# Product Information



## Embelin

Item No. 11838

**CAS Registry No.:** 550-24-3  
**Formal Name:** 2,5-dihydroxy-3-undecyl-2,5-cyclohexadiene-1,4-dione  
**Synonym:** NSC 91874  
**MF:** C<sub>17</sub>H<sub>26</sub>O<sub>4</sub>  
**FW:** 294.4  
**Purity:** ≥95%  
**Stability:** ≥2 years at -20°C  
**Supplied as:** A crystalline solid  
**UV/Vis.:** λ<sub>max</sub>: 289 nm



### Laboratory Procedures

For long term storage, we suggest that embelin be stored as supplied at -20°C. It should be stable for at least two years.

Embelin is supplied as a crystalline solid. A stock solution may be made by dissolving the embelin in the solvent of choice. Embelin is soluble in organic solvents such as DMSO and dimethyl formamide, which should be purged with an inert gas. The solubility of embelin in these solvents is approximately 3 and 5 mg/ml, respectively.

Embelin is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, embelin should first be dissolved in DMF and then diluted with the aqueous buffer of choice. Embelin 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.

X-Linked inhibitor of apoptosis (XIAP) is a protein which modulates several pathways, including several related to apoptosis.<sup>1</sup> Embelin is a natural benzoquinone, isolated from plants of the genus *Embelia*, which directly binds and inhibits XIAP (IC<sub>50</sub> = 4.1 μM).<sup>2</sup> In this way, this cell-permeable inhibitor blocks growth while activating caspases and promoting apoptosis in cancer cells expressing high levels of XIAP.<sup>2</sup> Presumably in an XIAP-dependent fashion, embelin (15-50 μM) also prevents NF-κB activation by inhibiting IKK.<sup>3,4</sup> This compound also protects against XIAP- and caspase-dependent inflammation.<sup>5,6</sup>

### References

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- Thippeswamy, B.S., Meahendran, S., Biradar, M.I., *et al.* Protective effect of embelin against acetic acid induced ulcerative colitis in rats. *Eur. J. Pharmacol.* **654**, 100-105 (2011).

### Related Products

For a list of related products please visit: [www.caymanchem.com/catalog/11838](http://www.caymanchem.com/catalog/11838)

**WARNING: THIS PRODUCT IS FOR LABORATORY RESEARCH ONLY; NOT FOR ADMINISTRATION TO HUMANS. NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.**

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