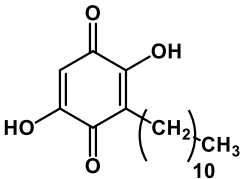


## Embelin

Name of the Phytochemical	Embelin
Chemical Structure	 <chem>O=C1C(=O)C(O)C(C1)CCCCCCCCCO</chem>
Botanical Source	Embelia ribes
CAS Number	550-24-3
Functional Activity	<ul style="list-style-type: none"> <li>• Inhibitor of: IKK, PCAF, and XIAP. Only known non-peptide small-molecule X-linked inhibitor of the apoptosis protein (XIAP)</li> <li>• Activator of: caspase-9.</li> <li>• Exhibits anti-oxidant, mitochondrial uncoupling, and anti-fertility properties</li> <li>• Acts as a potent neuroprotective agent and is also beneficial as an adjunct therapy for cerebral stroke</li> </ul>
Key References	<ol style="list-style-type: none"> <li>1. Antibacterial activity of embelin. <b>Fitoterapia</b>, 2003, 74, 401-3</li> <li>2. Discovery of embelin as a cell-permeable, small-molecular weight inhibitor of XIAP through structure-based computational screening of a traditional herbal medicine three-dimensional structure database. <b>J Med Chem</b>, 2004, 47, 2430-40</li> <li>3. Free radical scavenging reactions and antioxidant activity of embelin: biochemical and pulse radiolytic studies. <b>Chem Biol Interact</b>, 2007, 167, 125-34</li> <li>4. Embelin inhibits pancreatic cancer progression by directly inducing cancer cell apoptosis and indirectly restricting IL-6 associated inflammatory and immune suppressive cells. <b>Cancer Lett.</b>, 2014, 354, 407-16.</li> </ol>

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|  | <p>22. Discovery of embelin as a cell-permeable, small-molecular weight inhibitor of XIAP through structure-based computational screening of a traditional herbal medicine three-dimensional structure database. <b>J. Med. Chem.</b>, 2004, 47, 2430-2440</p> <p>23. A potential antibacterial agent embelin, a natural benzoquinone extracted from Embelia ribes. <b>Biol. Med.</b>, 2011, 3, 1-7</p> <p>24. Discovery of embelin as a cell-permeable, small-molecular weight inhibitor of XIAP through structure-based computational screening of a traditional herbal medicine three-dimensional structure database. <b>J Med Chem.</b>, 2004, 47, 2430-2440</p> <p>25. Embelin, an inhibitor of X chromosome-linked inhibitor-of-apoptosis protein, blocks nuclear factor-kappaB (NF-kappaB) signaling pathway leading to suppression of NF-kappaB-regulated antiapoptotic and metastatic gene products. <b>Mol Pharmacol.</b>, 2007, 71, 209-219</p> <p>26. XIAP inhibitor embelin induces autophagic and apoptotic cell death in human oral squamous cell carcinoma cells. <b>Environ Toxicol.</b>, 2017, 32, 2371-2378</p> <p>27. The Application of Embelin for Cancer Prevention and Therapy. <b>Molecules</b>, 2018, 23, , 621</p> |
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