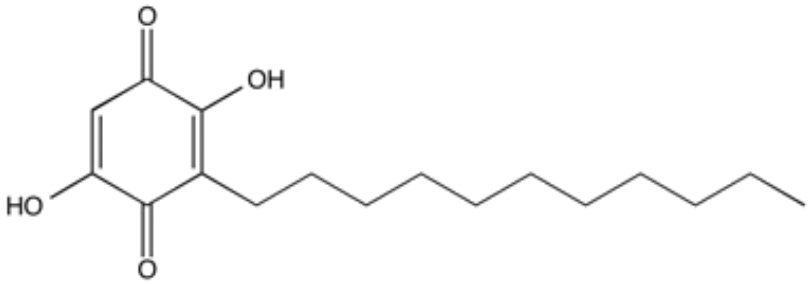
Catalog # 10-2959

Embelin

CAS# 550-24-3

2,5-Dihydroxy-3-undecyl-2,5-cyclohexadiene-1,4-dione

Lot # X101722



Inhibits the lysine acetyl transferase PCAF *in vitro and in vivo* (*in vitro* IC_{50}=7.2 μM). Inhibits H3K9 acetylation in mouse liver tissue while leaving levels of H3K14, H4K8, H4K12 unchanged.[1] Also inhibits X-linked inhibitor of apoptosis (XIAP) (IC_{50} = 4.1 μM, competing with Smac peptide). Binds to the BIR3 domain, preventing XIAP interaction with caspase-9 and Smac. Induces apoptosis and alters gene expression profiles in breast cancer cells.[3] Possesses anti-inflammatory and analgesic activity *in vivo.*[4] Cell-permeable.

1) Modak *et al*. (2013), *Probing p300/CBP associated factor (PCAF)-dependent pathways with a small molecule inhibitor*; ACS Chem. Biol., **8** 1311
2) Nikolovska-Coleska *et al*. (2004), *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*; J. Med. Chem., **47** 2430
3) Shah *et al*. (2016), *Embelin inhibits proliferation, induces apoptosis and alters gene expression profiles in breast cancer cells*; Pharmacol. Rep., **68** 638
4) Chitra *et al*. (1994), *Antitumor, anti-inflammatory and analgesic property of embelin, a plant product.*; Chemotherapy, **40** 109

PHYSICAL DATA

Molecular Weight:	294.39
Molecular Formula:	$C_{17}H_{26}O_4$
Purity:	98% by HPLC NMR: (Conforms)
Solubility:	Soluble in DMSO (up to 30 mg/ml) or in Ethanol (up to 3 mg/ml with warming)
Physical Description:	Dark orange solid
Storage and Stability:	Store as supplied, desiccated at -20°C for up to 1 year from the date of purchase. Solutions in DMSO, or ethanol may be stored at -20°C for up to 1 month.

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