

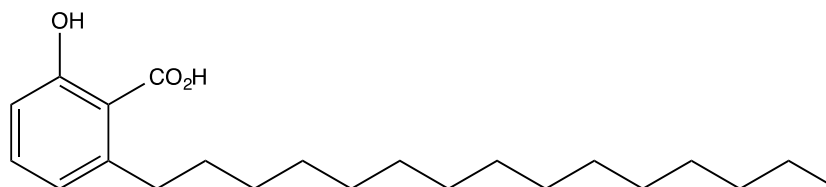
Catalog # 10-4015

Anacardic acid

2-Hydroxy-6-pentadecylbenzoic acid; 6-Pentadecylsalicylic acid; 6-PDSA

CAS# 16611-84-0

Lot # FBS1069



Anacardic acid is a natural product found in cashew nut oil. It is an inhibitor of the histone acetyltransferases p300 and PCAF (IC₅₀'s = 8.5 and 5.0 μM respectively).¹ Anacardic acid sensitizes cancer cells to ionizing radiation² and suppresses proteins involved in invasion and angiogenesis (Src/FAK/Rho GTPases³ and MMP's 2 (IC₅₀ = 11.11 μM)⁴ and 9). It inhibits both inducible and constitutive NF-κB activation.⁵

- 1) Balasubramanyam *et al.* (2003), *Small molecule modulators of histone acetyltransferase p300*; J.Biol.Chem. **278** 19134
- 2) Sun *et al.* (2006), *Inhibition of histone acetyltransferase activity by anacardic acid sensitizes tumor cells to ionizing radiation*; FEBS Lett. **580** 4353
- 3) Wu *et al.* (2011), *Anacardic acid (6-Pentadecylsalicylic acid) Inhibits Tumor Angiogenesis by Targeting Src/FAK/Rho GTPases Signaling Pathway*; J.Pharmacol.Exp.Ther. **339** 403
- 4) Omanakuttan *et al.* (2012), *Anacardic acid Inhibits the Catalytic Activity of Matrix Metalloproteinase-2 and Matrix Metalloproteinase-9*; Mol.Pharmacol. **82** 614
- 5) Sung *et al.* (2008), *Anacardic acid (6-nonadecyl salicylic acid), an inhibitor of histone acetyltransferase, suppresses expression of nuclear factor-κB- regulated gene products involved in cell survival, proliferation, invasion, and inflammation through inhibition of the inhibitory subunit of nuclear factor-κBα kinase, leading to potentiation of apoptosis*; Blood **111** 4880

PHYSICAL DATA

Molecular Weight: 348.52

Molecular Formula: C₂₂H₃₆O₃

Purity: >98% by HPLC

NMR: Conforms

Solubility: DMSO (>25 mg/mL); Ethanol (15mg/mL)

Physical Description: White 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 3 months.

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