

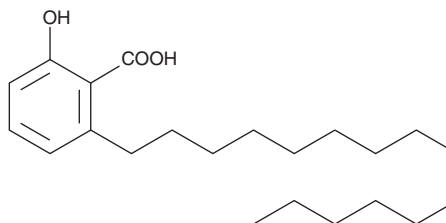
PRODUCT INFORMATION



Anacardic Acid

Item No. 13144

CAS Registry No.: 16611-84-0
Formal Name: 2-hydroxy-6-pentadecylbenzoic acid
Synonym: 6-pentadecyl Salicylic Acid
MF: C₂₂H₃₆O₃
FW: 348.5
Purity: ≥98%
UV/Vis.: λ_{max}: 209, 243, 312 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

Anacardic acid is supplied as a crystalline solid. A stock solution may be made by dissolving the anacardic acid in the solvent of choice. Anacardic acid is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide, which should be purged with an inert gas. The solubility of anacardic acid in these solvents is approximately 10 mg/ml.

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

Description

Anacardic acid, isolated from cashew shells or several other medicinal plants, is the general name given to a family of four different 6-alkyl salicylic acids having varying degrees of unsaturation in the 15-carbon alkyl chain.¹ These compounds are associated with anti-inflammatory, anti-tumor, molluscicidal, and anti-microbial activity. Literature frequently sites and gives the name anacardic acid to the completely-saturated compound (6-pentadecyl salicylic acid). Anacardic acid inhibits the histone acetyltransferase (HAT) activity of the transcription co-activators p300 and p300/CREB-binding protein-associated factor (PCAF) with IC₅₀ values of 8.5 and 5 μM, respectively.² At 25 μmol/L, anacardic acid suppresses NF-κB activation, inhibits κB-α phosphorylation, and prohibits p65 nuclear translocation in KBM-5 cells.³

References

1. Satoh, M., Takeuchi, N., Fujita, T., *et al.* Synthesis of anacardic acids utilizing an annelation reaction of isoxazoles with ethyl acetoacetate. *Chem. Pharm. Bull.* **46(10)**, 1501-1505 (1998).
2. Balasubramanyam, K., Swaminathan, V., Ranganathan, A., *et al.* Small molecule modulators of histone acetyltransferase p300. *The Journal of Biological Chemistry* **278(21)**, 19134-19140 (2003).
3. Sung, B., Pandey, M.K., Ahn, K.S., *et al.* 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**, 4880-4891 (2008).

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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