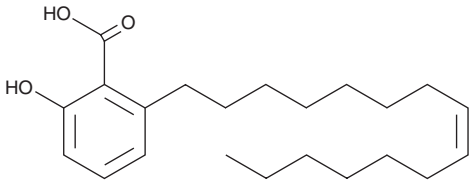
PRODUCT INFORMATION

Anacardic Acid monoene

Item No. 18422

CAS Registry No.:	22910-60-7
Formal Name:	2-hydroxy-6-(8Z)-8-pentadecenyl-benzoic acid
Synonyms:	Anacardic Acid 15:1, Ginkgolic Acid I, Ginkgolic Acid C15:1
MF:	$C_{22}H_{34}O_3$
FW:	346.5
Purity:	≥95%
UV/Vis.:	λ_{max}: 243, 311 nm
Supplied as:	A crystalline solid
Storage:	-20°C
Stability:	≥2 years



Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

Laboratory Procedures

Anacardic acid monoene is supplied as a crystalline solid. A stock solution may be made by dissolving the anacardic acid monoene in the solvent of choice. Anacardic acid monoene is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide (DMF), which should be purged with an inert gas. The solubility of anacardic acid monoene in ethanol and DMF is approximately 50 mg/ml and approximately 30 mg/ml in DMSO.

Anacardic acid monoene is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, anacardic acid monoene should first be dissolved in ethanol and then diluted with the aqueous buffer of choice. Anacardic acid monoene 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

Extracts of the leaves and fruit of *Ginkgo* plants have long been used in traditional medicine and have multiple potential therapeutic applications, including ameliorating dementia.[1,2] However, ginkgolic acids, 2-hydroxy-6-alkylbenzoic acids related to anacardic acids, may be deleterious components in these extracts.[1] Anacardic acid is a 2-hydroxy-6-alkylbenzoic acid in which the alkyl chain contains 15 carbons and is unsaturated at the 8 position.[1] It inhibits SUMOylation *in vitro* (IC_{50} = 3 µM) and in cells without affecting protein ubiquitination.[3,4] Anacardic acid directly binds the SUMO-activating enzyme E1, blocking the formation of the E1-SUMO intermediate.[3] Anacardic acid also suppresses the development of pancreatic cancer xenografts in mice.[5]

References

1. He, X., Bernart, M.W., Nolan, G.S., *et al. J. Chromatogr. Sci.* **38**, 169-173 (2000).
2. Gauthier, S. and Schlaefke, S. *Clin. Interv. Aging* **9**, 2065-2077 (2014).
3. Fukuda, I., Ito, A., Hirai, G., *et al. Chem. Biol.* **16**, 133-140 (2009).
4. Luo, H.-B., Xia, Y.-Y., Shu, X.-J., *et al. Proc. Natl. Acad. Sci. USA* **111(46)**, 16586-16591 (2014).
5. Ma, J., Duan, W., Han, S., *et al. Oncotarget* **6(25)**, 20993-21003 (2015).

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