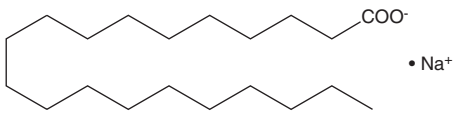
PRODUCT INFORMATION

Arachidic Acid (sodium salt)

Item No. 21906

CAS Registry No.:	13257-34-6
Formal Name:	eicosanoic acid, monosodium salt
Synonyms:	Arachidate, Eicosanoate, FA 20:0, Icosanoic Acid
MF:	$C_{20}H_{39}O_2 \bullet Na$
FW:	334.5
Purity:	≥95%
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

Arachidic acid (sodium salt) is supplied as a crystalline solid. A stock solution may be made by dissolving the arachidic acid (sodium salt) in the solvent of choice, which should be purged with an inert gas. Arachidic acid (sodium salt) is soluble in the organic solvent ethanol at a concentration of approximately 1.5 mg/ml.

Arachidic acid (sodium salt) is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, arachidic acid (sodium salt) should first be dissolved in ethanol and then diluted with the aqueous buffer of choice. Arachidic acid (sodium salt) has a solubility of approximately 0.5 mg/ml in a 1:5 solution of ethanol:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

Description

Arachidic acid is a long-chain saturated fatty acid that has been found in peanut butter and anaerobic fungi.[1,2] It inhibits rabbit neutrophil aggregation induced by N-formyl-methionyl-leucyl-phenylalanine (fMLP; Item No. 21495) when used at a concentration of 5 µM.[3] Formulations containing arachidic acid have been used as surfactants in the manufacture of soaps and cosmetics.

References

1. Negoita, M., Mihai, A.L., Adascalului, A., *et al.* Comparison of the fatty acid composition of peanut butter by applying different fat extraction procedures. *Rev. Chim. (Bucharest)* **69(11)**, 3023-3032 (2018).
2. Koppová, I., Novotná, Z., Štrosová, L., *et al.* Analysis of fatty acid composition of anaerobic rumen fungi. *Folia Microbiol. (Praha)* **53(3)**, 217-220 (2008).
3. Naccache, P.H., Moiski, T.F., Volpi, M., *et al.* Modulation of rabbit neutrophil aggregation and degranulation by free fatty acids. *J. Leukoc. Biol.* **36(3)**, 333-340 (1984).

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