

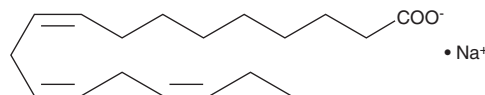
# PRODUCT INFORMATION



## $\alpha$ -Linolenic Acid (sodium salt)

Item No. 21910

**CAS Registry No.:** 822-18-4  
**Formal Name:** 9Z,12Z,15Z-octadecatrienoic acid, monosodium salt  
**Synonyms:** ALA, C18:3 (9Z,12Z,15Z), C18:3 n-3, FA 18:3  
**MF:** C<sub>18</sub>H<sub>29</sub>O<sub>2</sub> • Na  
**FW:** 300.4  
**Purity:** ≥95%  
**Supplied as:** A crystalline solid  
**Storage:** -80°C  
**Stability:** ≥1 year



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

### Laboratory Procedures

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

$\alpha$ -Linolenic acid (sodium salt) is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers,  $\alpha$ -linolenic acid (sodium salt) should first be dissolved in ethanol and then diluted with the aqueous buffer of choice.  $\alpha$ -Linolenic 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

$\alpha$ -Linolenic acid is an essential  $\omega$ -3 polyunsaturated fatty acid found in plants.<sup>1</sup> *In vivo*, it is converted to the longer-chain fatty acids eicosapentaenoic (Item Nos. 90110 | 90110.1 | 21908), docosapentaenoic (Item Nos. 90165 | 21907), and docosahexaenoic acid (Item No. 90310).<sup>2</sup> It is also catabolized *via* fatty acid  $\beta$ -oxidation for energy or the synthesis of saturated and monounsaturated fatty acids, or stored in adipose tissue. Dietary consumption of  $\alpha$ -linolenic acid-containing foods is positively associated with a moderately lower risk of cardiovascular disease.<sup>1</sup>

### Reference

1. Pan, A., Chen, M., Chowdhury, R., *et al.*  $\alpha$ -Linolenic acid and risk of cardiovascular disease: A systematic review and meta-analysis. *Am. J. Clin. Nutr.* **96**(6), 1262-1273 (2012).
2. Burdge, G.C. Metabolism of  $\alpha$ -linolenic acid in humans. *Prostaglandins Leukot. Essent. Fatty Acids* **75**(3), 161-168 (2006).

#### 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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