

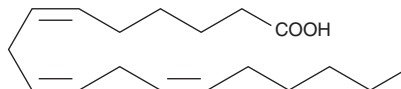
# PRODUCT INFORMATION



## $\gamma$ -Linolenic Acid

Item No. 90220

CAS Registry No.: 506-26-3  
Formal Name: 6Z,9Z,12Z-octadecatrienoic acid  
Synonym: GLA  
MF:  $C_{18}H_{30}O_2$   
FW: 278.4  
Purity:  $\geq 98\%$   
Supplied as: A solution in ethanol  
Storage:  $-20^{\circ}C$   
Stability:  $\geq 2$  years



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

### Laboratory Procedures

GLA is supplied as a solution in ethanol. To change the solvent, simply evaporate the ethanol under a gentle stream of nitrogen and immediately add the solvent of choice. Solvents such as DMSO or dimethyl formamide purged with an inert gas can be used. The solubility of GLA in these solvents is approximately 100 mg/ml.

Further dilutions of the stock solution into aqueous buffers or isotonic saline should be made prior to performing biological experiments. Ensure that the residual amount of organic solvent is insignificant, since organic solvents may have physiological effects at low concentrations. If an organic solvent-free solution of GLA is needed, it can be prepared by evaporating the ethanol and directly dissolving the neat oil in aqueous buffers. The solubility of GLA in 0.15 M Tris-HCl (pH 8.5) is approximately 1 mg/ml. We do not recommend storing the aqueous solution for more than one day.

### Description

GLA is an  $\omega$ -6 fatty acid which can be elongated to arachidonic acid for endogenous eicosanoid synthesis. It is a weak  $LTB_4$  receptor antagonist, inhibiting [ $^3H$ ]- $LTB_4$  binding to porcine neutrophil membranes with a  $K_i$  of 1  $\mu$ M. GLA produces 53% inhibition at a 1 mg/kg dose in an *in vivo* model of  $LTB_4$ -induced bronchoconstriction.<sup>1</sup>

### Reference

1. Yagaloff, K.A., Franco, L., Simko, B., *et al.* Essential fatty acids are antagonists of the leukotriene  $B_4$  receptor. *Prostaglandins Leukot. Essent. Fatty Acids* 52(5), 293-297 (1995).

#### 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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