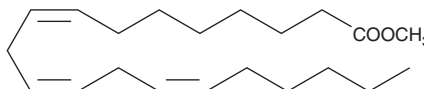


# PRODUCT INFORMATION

## Dihomo- $\gamma$ -Linolenic Acid methyl ester

Item No. 10006580

CAS Registry No.: 21061-10-9  
 Formal Name: 8Z,11Z,14Z-eicosatrienoic acid, methyl ester  
 Synonym: Methyl DGLA  
 MF:  $C_{21}H_{36}O_2$   
 FW: 320.5  
 Purity:  $\geq 98\%$   
 Stability:  $\geq 1$  year at  $-20^\circ\text{C}$   
 Supplied as: A solution in ethanol



### Laboratory Procedures

For long term storage, we suggest that Dihomo- $\gamma$ -linolenic acid methyl ester (Methyl DGLA) be stored as supplied at  $-20^\circ\text{C}$ . It should be stable for at least one year.

Methyl DGLA 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 and dimethyl formamide purged with an inert gas can be used. The solubility of Methyl DGLA 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 Methyl DGLA is needed, it can be prepared by evaporating the ethanol and directly dissolving the neat oil in aqueous buffers. The solubility of Methyl DGLA in PBS (pH 7.2) is approximately 0.15 mg/ml. We do not recommend storing the aqueous solution for more than one day.

### Description

Dihomo- $\gamma$ -Linolenic acid (DGLA) is a metabolite produced by chain elongation of the essential fatty acid  $\gamma$ -linolenic acid. Methyl DGLA is an esterified version of the free acid which is less water soluble, but more amenable for the formulation of DGLA-containing diets and dietary supplements. DGLA has been advanced as a possible treatment for various inflammatory disorders.<sup>1,2</sup> Evening primrose oil is a DGLA-rich nutraceutical which has been advocated for such uses.

### References

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**, 293-297 (1995).
2. Schalin-Karrila, M., Mattila, L., Jansen, C.T., *et al.* Evening primrose oil in the treatment of atopic eczema: Effect on clinical status, plasma phospholipid fatty acids and circulating blood prostaglandins. *Br. J. Dermatol.* **117**, 11-19 (1987).

#### 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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