

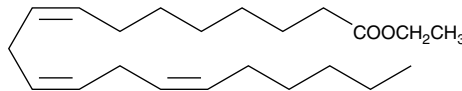
# Product Information



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

Item No. 90236

**CAS Registry No.:** 55968-21-3  
**Formal Name:** 8Z,11Z,14Z-eicosatrienoic acid, ethyl ester  
**Synonym:** Ethyl DGLA  
**MF:** C<sub>22</sub>H<sub>38</sub>O<sub>2</sub>  
**FW:** 334.5  
**Purity:**  $\geq$ 98%  
**Stability:**  $\geq$ 1 year at -20°C  
**Supplied as:** A solution in ethanol



### Laboratory Procedures

For long term storage, we suggest that dihomogamma-linolenic acid ethyl ester (ethyl DGLA) be stored as supplied at -20°C. It should be stable for at least one year.

Ethyl 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 ethyl 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 ethyl DGLA is needed, it can be prepared by evaporating the ethanol and directly dissolving the neat oil in aqueous buffers. The solubility of ethyl DGLA 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.

DGLA is a metabolite produced by chain elongation of the essential fatty acid  $\gamma$ -linolenic acid. Ethyl 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<sub>4</sub> 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).

### Related Products

For a list of related products please visit: [www.caymanchem.com/catalog/90236](http://www.caymanchem.com/catalog/90236)

**WARNING: THIS PRODUCT IS FOR LABORATORY RESEARCH ONLY. NOT FOR ADMINISTRATION TO HUMANS. NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.**

#### SAFETY DATA

This material should be considered hazardous until information to the contrary becomes available. Do not ingest, swallow, or inhale. Do not get in eyes, on skin, or on clothing. Wash thoroughly after handling. This information contains some, but not all, of the information required for the safe and proper use of this material. Before use, the user must review the complete Safety Data Sheet, which has been sent via email to your institution.

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