PRODUCT INFORMATION

Dihomo-γ-Linolenic Acid
Item No. 90230

CAS Registry No.: 1783-84-2
Formal Name: 8Z,11Z,14Z-eicosatrienoic acid
Synonyms: DGLA, cis-8,11,14-Eicosatrienoic Acid, γ-Homolinolenic Acid
MF: C_{20}H_{34}O_{2}
FW: 306.5
Purity: ≥98%
Supplied as: A solution in ethanol
Storage: -20°C
Stability: ≥1 year

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

**Laboratory Procedures**

Dihomo-γ-linolenic acid (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 or dimethyl formamide can be used. To prevent oxidation of DGLA, the solvent should be purged with an inert gas. The solubility of 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 DGLA is needed, it can be prepared by evaporating the ethanol and directly dissolving the neat oil in aqueous buffers. The solubility of 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.

**Description**

DGLA (20:3), an elongation product of γ-linolenic acid (18:3), is rapidly metabolized by fatty acid desaturases to produce arachidonic acid (20:4). DGLA is metabolized through the cyclooxygenase pathway to produce 1-series prostaglandins, including PGE_1. In mice, DGLA supplementation in the diet can reduce atopic dermatitis and atherosclerosis.

**References**