

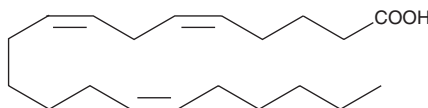
# PRODUCT INFORMATION



## 5(Z),8(Z),14(Z)-Eicosatrienoic Acid

Item No. 10009733

CAS Registry No.: 90105-02-5  
Formal Name: 5Z,8Z,14Z-eicosatrienoic acid  
Synonym: FA 20:3  
MF:  $C_{20}H_{34}O_2$   
FW: 306.5  
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

5(Z),8(Z),14(Z)-Eicosatrienoic acid 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 5(Z),8(Z),14(Z)-eicosatrienoic acid 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 5(Z),8(Z),14(Z)-eicosatrienoic acid is needed, it can be prepared by evaporating the ethanol and directly dissolving the neat oil in aqueous buffers. For greater aqueous solubility, 5(Z),8(Z),14(Z)-eicosatrienoic acid can be directly dissolved in 0.1 M  $Na_2CO_3$  (solubility of approximately 1.5 mg/ml) and then diluted with PBS (pH 7.2) to achieve the desired concentration or pH. We do not recommend storing the aqueous solution for more than one day.

### Description

5(Z),8(Z),14(Z)-Eicosatrienoic acid is a polyunsaturated fatty acid that can be a substrate for 5-lipoxygenase (5-LO). 5-LO from RBL-1 cells converts this fatty acid to 5-hydroxy-6,8,14-eicosatrienoic acid and 5-hydroperoxy-6,8,14-eicosatrienoic acid. However, only insignificant amounts of dihydroxy acid were produced. Due to the lack of a double bond at C-11, this particular fatty acid cannot be used in leukotriene A formation.<sup>1</sup>

### Reference

1. Wei, Y., Evanst, R.W., Morrison, A.R., *et al.* Double bond requirement for the 5-lipoxygenase pathway. *Prostaglandins* **29(4)**, 537-545 (1985).

#### 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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