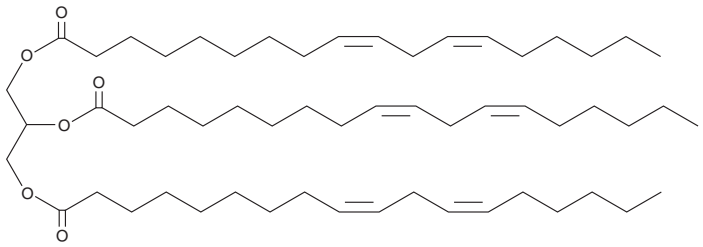
PRODUCT INFORMATION

1,2,3-Trilinoleoyl Glycerol

Item No. 26951

CAS Registry No.:	537-40-6
Formal Name:	9Z,12Z-octadecadienoic acid, 1,1′,1′′-(1,2,3-propanetriyl) ester
Synonyms:	Glycerol Trilinoleate, TG(18:2/18:2/18:2), Trilinolein
MF:	$C_{57}H_{98}O_6$
FW:	879.4
Purity:	≥95%
Supplied as:	An oil
Storage:	-20°C
Stability:	≥4 years



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

Laboratory Procedures

1,2,3-Trilinoleoyl glycerol is supplied as an oil. A stock solution may be made by dissolving the 1,2,3-trilinoleoyl glycerol in the solvent of choice, which should be purged with an inert gas. 1,2,3-Trilinoleoyl glycerol is soluble in organic solvents such as ethanol and dimethyl formamide. The solubility of 1,2,3-trilinoleoyl glycerol in these solvents is approximately 10 mg/ml.

1,2,3-Trilinoleoyl glycerol is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, 1,2,3-trilinoleoyl glycerol should first be dissolved in ethanol and then diluted with the aqueous buffer of choice. 1,2,3-Trilinoleoyl glycerol has a solubility of approximately 0.5 mg/ml in a 1:1 solution of ethanol:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

Description

1,2,3-Trilinoleoyl glycerol is a triacylglycerol that contains linoleic acid (Item Nos. 90150 | 90150.1 | 21909) at the *sn*-1, *sn*-2, and *sn*-3 positions. It reduces production of oxygen-derived free radicals in leukocytes.[1] 1,2,3-Trilinoleoyl glycerol (1 µM) reduces mitochondrial swelling and deformation induced by ischemia and reperfusion injury in perfused rat hearts. *In vivo*, 1,2,3-trilinoleoyl glycerol (1 mg/kg) reduces the incidence rate and duration of ventricular tachycardia, as well as infarct size in a rat model of coronary artery ligation-induced ischemia and reperfusion injury.[2]

References

1. Chan, P., Niu, C.-S., Cheng, J.-T., *et al.* Trilinolein preserves mitochondria ultrastructure in isolated rat heart subjected to global ischemia through antioxidant activity as measured by chemiluminescence. *Pharmacology* **52(4)**, 216-225 (1996).
2. Chan, P., Tsai, S.-K., Chiang, B.-N., *et al.* Trilinolein reduces infarct size and suppresses ventricular arrhythmias in rats subjected to coronary ligation. *Pharmacology* **51(2)**, 118-126 (1995).

CAYMAN CHEMICAL
1180 EAST ELLSWORTH RD
ANN ARBOR, MI 48108 · USA
PHONE: [800] 364-9897
[734] 971-3335
FAX: [734] 971-3640
CUSTSERV@CAYMANCHEM.COM
WWW.**CAYMANCHEM**.COM