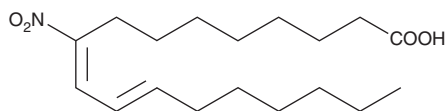


PRODUCT INFORMATION

9(E),11(E)-9-nitro Conjugated Linoleic Acid

Item No. 30160

CAS Registry No.: 1417651-32-1
Formal Name: (9E,11E)-9-nitro-9,11-octadecadienoic acid
Synonym: 9E,11E-9-nitro CLA
MF: $C_{18}H_{31}NO_4$
FW: 325.4
Purity: $\geq 98\%$
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

9(E),11(E)-9-nitro Conjugated linoleic acid (9E,11E-9-nitro CLA) 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 9E,11E-9-nitro CLA in these solvents is approximately 50 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 9E,11E-9-nitro CLA is needed, it can be prepared by evaporating the ethanol and directly dissolving the neat oil in aqueous buffers. For greater aqueous solubility, 9E,11E-9-nitro CLA can be directly dissolved in 0.1 M Na_2CO_3 (solubility of 1 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

9E,11E-9-nitro CLA is a nitrated fatty acid. It is formed from 9Z,11E-CLA (Item No. 90140) upon exposure to acidified nitrite, peroxyxynitrite, gaseous nitrogen dioxide, or a combination of myeloperoxidase, hydrogen peroxide, and nitrite.¹ It is also formed in LPS-stimulated RAW 264.7 macrophages, an effect that can be reduced by the nitric oxide synthase (NOS) inhibitor L-NAME (Item No. 80210).² 9E,11E-9-nitro CLA has been found in human plasma.

References

- Woodcock, S.R., Salvatore, S.R., Bonacci, G., *et al.* Biomimetic nitration of conjugated linoleic acid: Formation and characterization of naturally occurring conjugated nitrodienes. *J. Org. Chem.* **79**(1), 25-33 (2014).
- Bonacci, G., Baker, P.R.S., Salvatore, S.R., *et al.* Conjugated linoleic acid is a preferential substrate for fatty acid nitration. *J. Biol. Chem.* **287**(53), 44071-44082 (2012).

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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