

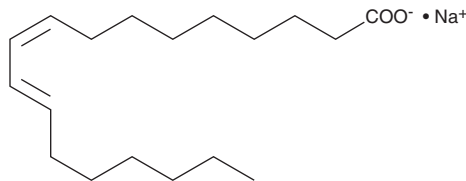
PRODUCT INFORMATION



9(Z),11(E)-Conjugated Linoleic Acid (sodium salt)

Item No. 31552

CAS Registry No.: 756499-04-4
Formal Name: (9Z,11E)-9,11-octadecadienoic acid, monosodium salt
Synonyms: *cis*-9,*trans*-11-Conjugated Linoleic Acid, 9(Z),11(E)-CLA, FA 18:2
MF: C₁₈H₃₁O₂ • Na
FW: 302.4
Purity: ≥98%
Supplied as: A solid
Storage: -20°C
Stability: ≥4 years



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

Laboratory Procedures

9(Z),11(E)-Conjugated linoleic acid (sodium salt) is supplied as a solid. A stock solution may be made by dissolving the 9(Z),11(E)-conjugated linoleic acid (sodium salt) in the solvent of choice. 9(Z),11(E)-Conjugated linoleic acid (sodium salt) is soluble in organic solvents such as methanol and DMSO, which should be purged with an inert gas. It is also soluble in water. We do not recommend storing the aqueous solution for more than one day.

Description

9(Z),11(E)-Conjugated linoleic acid is an isomer of linoleic acid (Item Nos. 90150 | 90150.1 | 21909) that has been found in beef and milk fat.¹ It binds to peroxisome proliferator-activated receptor α (PPAR α ; IC₅₀ = 140 nM) and activates the receptor in a reporter assay using COS-1 cells expressing mouse PPAR α when used at a concentration of 100 μ M.² 9(Z),11(E)-Conjugated linoleic acid inhibits TNF- α -induced GLUT4 expression and increases insulin-stimulated glucose transport in 3T3-L1 adipocytes.³ Dietary administration of 9(Z),11(E)-conjugated linoleic acid reduces serum fasting glucose, insulin, and triglyceride levels and decreases white adipose tissue macrophage infiltration in *ob/ob* mice. It also increases body weight gain and body fat in weanling mice.⁴

References

1. Shultz, T.D., Chew, B.P., Seaman, W.R., *et al.* Inhibitory effect of conjugated dienoic derivatives of linoleic acid and β -carotene on the in vitro growth of human cancer cells. *Cancer Lett.* **63(2)**, 125-133 (1992).
2. Moya-Camarena, S.Y., Heuvel, J.P.V., Blanchard, S.G., *et al.* Conjugated linoleic acid is a potent naturally occurring ligand and activator of PPAR α . *J. Lipid. Res.* **40(8)**, 1426-1433 (1999).
3. Moloney, F., Toomey, S., Noone, E., *et al.* Antidiabetic effects of *cis*-9, *trans*-11-conjugated linoleic acid may be mediated via anti-inflammatory effects in white adipose tissue. *Diabetes* **56(3)**, 574-582 (2007).
4. Pariza, M.W., Park, Y., and Cook, M.E. The biologically active isomers of conjugated linoleic acid. *Prog. Lipid Res.* **40(4)**, 283-298 (2001).

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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