PRODUCT DATA SHEET

Methyl alpha-eleostearate

Catalog No: 1233
Other Name: Methyl 9(Z),11(E),13(E)-octadecatrienoate; alpha-Eleostearic acid methyl ester; Conjugated linolenic acid methyl ester; CLnA
Source: natural, plant
Solubility: hexane, ethanol, methanol, chloroform

CAS No: 4175-47-7
Mol. Formula: C_{19}H_{32}O_2
Mol. Weight: 292
Storage: -20°C
Purity: TLC, GC > 98%; identity confirmed by MS
Appearance: liquid

Application Notes:

alpha-Eleostearic acid is a conjugated linolenic acid (CLnA) that is found in high amounts in several natural oils, including tung oil. CLnAs contain 3 or 4 double bonds (which can be any combination of cis or trans) and predominantly 9,11,13- and 8,10,12-octadecatrienoic acid positional isomers. Research indicates that CLnAs posses strong anti diabetic, antiobesity, antiproliferative, and anticarcinogenic activities as well as a significant affect on lipid metabolism. (1) These physiological effects make CLnAs potential candidates as therapeutic agents, although more research is needed to verify previous findings. (2) Some studies suggest that punicic acid and other CLnAs can reduce adipose tissue in mouse models, making it potentially useful as a weight-controlling lipid. (3) CLnAs, including punicic, jacaric, and alpha-eleostearic acids, have been shown to suppress tumor cell growth through lipoperoxidation and apoptotic pathways and exhibit potent anti-inflammatory effects. (4,5) In addition alpha-eleostearic acid has been show to be significantly involved in the anti-adiposity function of mice. (7)

Selected References:

7. G. Chen et al. The anti-adiposity effect of bitter melon seed oil is solely attributed to its fatty acid components. Lipids Health Dis. vol. 16(186) pp. 1-10, 2017

This product is to be used for research only. It is not intended for drug or diagnostic use, human consumption or to be used in food or food additives. Matreya assumes no liability for any use of this product by the end user. We believe the information, offered in good faith, is accurate.