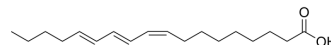


α -Eleostearic acid

Cat. No.:	HY-27787
CAS No.:	506-23-0
Molecular Formula:	C ₁₈ H ₃₀ O ₂
Molecular Weight:	278.43
Target:	Apoptosis; Ferroptosis
Pathway:	Apoptosis
Storage:	-80°C



SOLVENT & SOLUBILITY

In Vitro

DMSO : 30 mg/mL (107.75 mM; Need ultrasonic and warming)

Preparing Stock Solutions	Solvent		1 mg	5 mg	10 mg
	Concentration	Mass			
	1 mM		3.5916 mL	17.9578 mL	35.9157 mL
	5 mM		0.7183 mL	3.5916 mL	7.1831 mL
	10 mM		0.3592 mL	1.7958 mL	3.5916 mL

Please refer to the solubility information to select the appropriate solvent.

BIOLOGICAL ACTIVITY

Description

α -Eleostearic acid (cis-Eleostearic acid), a conjugated linolenic acid, is an apoptosis inducer. α -Eleostearic acid is also a ferroptosis inducer. α -Eleostearic acid exhibits antioxidant and antitumor activity^{[1][2][3]}.

In Vitro

α -Eleostearic acid (0-40 μ M; 24 h) inhibits the growth of some cancer and fibroblast cell lines, including those of HL60 leukemia and HT29 colon carcinoma^[1].
 α -Eleostearic acid (20 μ M; 6 h) induced cellular and nuclear fragmentation, and nucleosomal DNA fragmentation typical of apoptosis in HL60 leukemia cells^[1].
 α -Eleostearic acid (0.01-100 μ M; 72 h) triggers death of MDA-MB-231 cells and this death was suppressed by Fer-1, Deferoxamine, and vitamin E^[3].
 MCE has not independently confirmed the accuracy of these methods. They are for reference only.

In Vivo

α -Eleostearic acid (0.5% of total lipid given; p.o.) inhibits Sodium Arsenite-induced oxidative stress, including reversal of antioxidant enzyme activity and reduction of lipid peroxidation levels^[2].
 Oral administration of tung oil, naturally rich in α -Eleostearic acid, to mice limits tumor growth and metastasis in an aggressive TNBC orthotopic xenograft model^[3].
 MCE has not independently confirmed the accuracy of these methods. They are for reference only.

REFERENCES

- [1]. Kobori M, et, al. Alpha-eleostearic acid and its dihydroxy derivative are major apoptosis-inducing components of bitter gourd. J Agric Food Chem. 2008 Nov 26;56(22):10515-20.
- [2]. Saha SS, et, al. Comparative study of antioxidant activity of alpha-eleostearic acid and punicic acid against oxidative stress generated by sodium arsenite. Food Chem Toxicol. 2009 Oct;47(10):2551-6.
- [3]. Beatty A, et, al. Ferroptotic cell death triggered by conjugated linolenic acids is mediated by ACSL1. Nat Commun. 2021 Apr 14;12(1):2244.
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Caution: Product has not been fully validated for medical applications. For research use only.

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