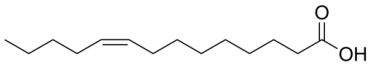
Data Sheet

Product Name:	Myristoleic acid
Cat. No.:	CS-0059626
CAS No.:	544-64-9
Molecular Formula:	$C_{14}H_{26}O_2$
Molecular Weight:	226.36
Target:	Apoptosis; Endogenous Metabolite
Pathway:	Apoptosis; Metabolic Enzyme/Protease
Solubility:	10 mM in DMSO



BIOLOGICAL ACTIVITY:

Myristoleic acid, a cytotoxic component in the extract from Serenoa repens, induces apoptosis and necrosis in human prostatic LNCaP cells[1]. **In Vitro:** Myristoleic acid induces both apoptosis (100 μg/mL, 89.5%) and necrosis (100 μg/mL, 81.8%) in LNCaP cells[1].

Myristoleic acid inhibited RANKL-induced osteoclast formation in vitro, especially, at later stages of differentiation[2].

In Vivo: Myristoleic acid (2 mg/kg, IP every 24 h for 4 days) prevents RANKL-induced bone loss and osteoclast formation in mice[2].

References:

[1]. Xiaoyan Gao, et al. Ozone initiated heterogeneous oxidation of unsaturated carboxylic acids by ATR-FTIR spectroscopy. Spectrochim Acta A Mol Biomol Spectrosc. 2019 May 5;214:177-183.

[2]. Jun-Oh Kwon, et al. Myristoleic acid inhibits osteoclast formation and bone resorption by suppressing the RANKL activation of Src and Pyk2. Eur J Pharmacol. 2015 Dec 5;768:189-98.

CAIndexNames:

9-Tetradecenoic acid,(9Z)-

SMILES:

CCCC/C=C\CCCCCCCC(O)=O

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