



Catalog # 10-1464

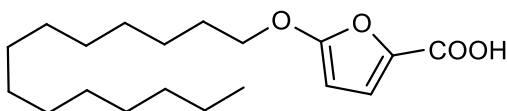
TOFA

CAS# 54857-86-2

RMI-14514

5-(Tetradecyloxy)-2-furoic acid

Lot # S101088



Interferes with fatty acid synthase via inhibition of acetyl Co-A carboxylase (ACC1)¹. Induces apoptosis in a variety of tumor cell lines^{2,3}. Stimulates neurite outgrowth and neuronal differentiation in rat pheochromocytoma cells⁴. Impairs glucose-stimulated insulin secretion after chronic treatment⁵.

- 1) Halvorson *et al.* (1984), *Inhibition of fatty acid synthesis in isolated adipocytes by 5-tetradecyloxy)-2-furoic acid*; *Lipids*, **19** 851
- 2) Guseva *et al.* (2011), *TOFA (5-tetradecyl-oxy-2-furoic acid) reduces fatty acid synthesis, inhibits expression of AR, neuropilin-1 and Mcl-1 and kills prostate cancer cells independent of p53 status*; *Cancer Biol. Ther.*, **12** 80
- 3) Zhou *et al.* (2003), *Fatty acid synthesis inhibition triggers apoptosis during S phase in human cancer cells*; *Cancer Res.*, **63** 7330
- 4) Schmidt *et al.* (1999), *Transcription control and neuronal differentiation by agents that activate the LXR nuclear receptor family*; *Mol. Cell. Endocrinol.*, **155** 51
- 5) Ronnebaum *et al.* (2008), *Chronic suppression of acetyl-CoA carboxylase 1 in beta-cells impairs insulin secretion via inhibition of glucose rather than lipid metabolism*; *J. Biol. Chem.*, **283** 14248

PHYSICAL DATA

Molecular Weight:	324.47
Molecular Formula:	C ₁₉ H ₃₂ O ₄
Purity:	98% by TLC
	NMR: (Conforms)
Solubility:	DMSO (up to 15 mg/ml) or Ethanol (up to 9 mg/ml)
Physical Description:	White solid
Storage and Stability:	Store as supplied at room temperature for up to 1 year from the date of purchase. Solutions in DMSO or ethanol may be stored at -20°C for up to 1 month.

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