

trans-C75

Chemical Properties

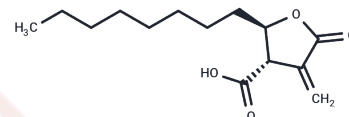
CAS No. : 191282-48-1

Formula: C₁₄H₂₂O₄

Molecular Weight: 254.32

Appearance: no data available

Storage: Powder: -20°C for 3 years | In solvent: -80°C for 1 year



Biological Description

Description	trans-C75 ((±)-C75) is an enantiomer of C75, which is an inhibitor of fatty-acid synthase (FASN).
Targets(IC50)	Fatty Acid Synthase
In vitro	Treatment with C75 alone decreased clonogenic survival, an effect that was abrogated by the antioxidant. C75 treatment also delayed spheroid growth in a concentration-dependent manner. The radiosensitizing effect of C75 was indicated by combination index values between 0.65 and 0.71 and the reduced surviving fraction of clonogens, in response to 2 Gy X irradiation, from 0.51 to 0.30 and 0.11 in the presence of 25 and 35 μM C75, respectively. This increased sensitivity to radiation was reduced by the presence of the antioxidant. The C75 treatment also enhanced the spheroid growth delay induced by X irradiation in a supra-additive manner. The level of radiation-induced apoptosis in prostate cancer cells was increased further by C75, which induced cell cycle arrest in the G2/M phase, but only at a concentration greater than that required for radiosensitization.

Solubility Information

Solubility	DMSO: 83.3 mg/mL (327.54 mM), Sonication and heating are recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)
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Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	3.9321 mL	19.6603 mL	39.3205 mL
5 mM	0.7864 mL	3.9321 mL	7.8641 mL
10 mM	0.3932 mL	1.966 mL	3.9321 mL
50 mM	0.0786 mL	0.3932 mL	0.7864 mL

Please select the appropriate solvent to prepare the stock solution, according to the solubility of the product in different solvents. Please use it as soon as possible.

Reference

Rae C, et al. Inhibition of Fatty Acid Synthase Sensitizes Prostate Cancer Cells to Radiotherapy.

Gao S, et al. Effect of the anorectic fatty acid synthase inhibitor C75 on neuronal activity in the hypothalamus and brainstem. Proc Natl Acad Sci U S A. 2003 May 13;100(10):5628-33.

Inhibitor · Natural Compounds · Compound Libraries · Recombinant Proteins

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