TOCRIS bioscience

Print Date: Jan 21st 2015

Certificate of Analysis

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Product Name: **C 75** **Catalog No.: 2489** **Batch No.: 1**

CAS Number: 191282-48-1

IUPAC Name: (2*R**,3*S**)-Tetrahydro-4-methylene-2-octyl-5-oxo-3-furancarboxylic acid

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: $C_{14}H_{22}O_4$

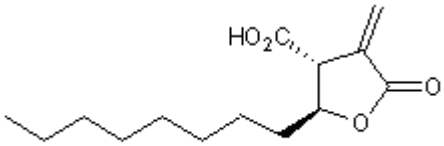
Batch Molecular Weight: 254.32

Physical Appearance: White solid

Solubility: 1eq. NaOH to 100 mM
DMSO to 100 mM

Storage: Store at +4°C

Batch Molecular Structure:



(and enantiomer)

2. ANALYTICAL DATA

HPLC: Shows 100% purity

^{1}H NMR: Consistent with structure

^{13}C NMR: Consistent with structure

Mass Spectrum: Consistent with structure

Microanalysis:

	Carbon	Hydrogen	Nitrogen
Theoretical	66.12	8.72	
Found	65.97	8.81	

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Description:

Synthetic inhibitor of fatty acid synthase (FASN); inhibits fatty acid synthesis in vitro and in vivo. Displays anorectic effects. Induces apoptosis in MCF-7 xenografts and exhibits anti-tumor activity.

Physical and Chemical Properties:

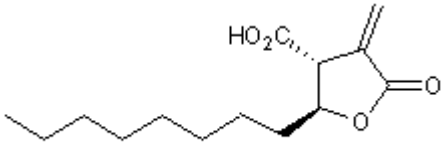
Batch Molecular Formula: $C_{14}H_{22}O_4$

Batch Molecular Weight: 254.32

Physical Appearance: White solid

Minimum Purity: >99%

Batch Molecular Structure:



(and enantiomer)

Storage: Store at +4°C

Solubility & Usage Info:

1eq. NaOH to 100 mM
DMSO to 100 mM

Stability and Solubility Advice:

Some solutions can be difficult to obtain and can be encouraged by rapid stirring, sonication or gentle warming (in a 45-60°C water bath).

Information concerning product stability, particularly in solution, has rarely been reported and in most cases we can only offer a general guide. Our standard recommendations are:

SOLIDS: Provided storage is as stated on the product label and the vial is kept tightly sealed, the product can be stored for up to 6 months from date of receipt.

SOLUTIONS: We recommend that stock solutions, once prepared, are stored aliquoted in tightly sealed vials at -20°C or below and used within 1 month. Wherever possible solutions should be made up and used on the same day.

References:

Kuhajda *et al* (2000) Synthesis and antitumor activity of an inhibitor of fatty acid synthase. Proc.Natl.Acad.Sci. ***97*** 3450.

Zhou *et al* (2003) Fatty acid synthase inhibition triggers apoptosis during S phase in human cancer cells. Cancer Res. ***63*** 7330. PMID: 14612531.

Takahashi *et al* (2004) The anorexigenic fatty acid synthase inhibitor, C45, is a nonspecific neuronal activator. Endocrinology ***145*** 184. PMID: 14512433.

Thupari *et al* (2004) Chronic C75 treatment of diet-induced obese mice increases fat oxidation and reduces food intake to reduce adipose mass. Am.J.Physiol.Endocrinol.Metab. ***287*** 97.