



# **Certificate of Analysis**

www.tocris.com

Product Name: C 75 Catalog No.: 2489 Batch No.: 3

CAS Number: 191282-48-1

IUPAC Name: (2R\*,3S\*)-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:254.32Physical Appearance:White solid

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

DMSO to 100 mM

Storage: Store at +4°C

**Batch Molecular Structure:** 

HO<sub>2</sub>C<sub>1,1</sub>

(and enantiomer)

#### 2. ANALYTICAL DATA

TLC: R<sub>f</sub> = 0.06 (Ethyl acetate:Petroleum ether [4:1])

**HPLC:** Shows 98.5% purity

<sup>1</sup>H NMR: Consistent with structure

Mass Spectrum: Consistent with structure

Microanalysis: Carbon Hydrogen Nitrogen

Theoretical 66.12 8.72

Found 66.21 8.91 0.05



# **Product Information**

Print Date: Jun 25th 2019

www.tocris.com

Product Name: C 75 Catalog No.: 2489 Batch No.: 3

CAS Number: 191282-48-1

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

### **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 antitumor activity.

#### **Physical and Chemical Properties:**

Batch Molecular Formula: C<sub>14</sub>H<sub>22</sub>O<sub>4</sub> Batch Molecular Weight: 254.32 Physical Appearance: White solid

Minimum Purity: >99%

#### **Batch Molecular Structure:**

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:

**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.

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

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

Caution - Not Fully Tested • Research Use Only • Not For Human or Veterinary Use