

Certificate of Analysis

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Product Name: MEDICA 16

Catalog No.: 4615

Batch No.: 1

CAS Number: 87272-20-6

IUPAC Name: 3,3,14,14-Tetramethylhexadecanedioic acid

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: $C_{20}H_{38}O_4 \cdot \frac{1}{4}H_2O$

Batch Molecular Weight: 347.01

Physical Appearance: Beige solid

Solubility: DMSO to 100 mM
ethanol to 100 mM

Storage: Store at -20°C

Batch Molecular Structure:



2. ANALYTICAL DATA

¹H NMR: Consistent with structure

Mass Spectrum: Consistent with structure

Microanalysis:

	Carbon	Hydrogen	Nitrogen
Theoretical	69.23	11.18	
Found	69.23	11.07	

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

Product Information

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IUPAC Name: 3,3,14,14-Tetramethylhexadecanedioic acid

Description:

Free fatty acid 1 (FFA1/GPR40) receptor agonist; exhibits selectivity for FFA1 (GPR40) over GPR120. Also inhibits ATP citrate lyase; reduces intracellular triacylglycerol levels in muscle, inhibits lipogenesis and increases insulin sensitivity in rodents in vivo.

Physical and Chemical Properties:

Batch Molecular Formula: C₂₀H₃₈O₄·¼H₂O

Batch Molecular Weight: 347.01

Physical Appearance: Beige solid

Batch Molecular Structure:



Storage: Store at -20°C

Solubility & Usage Info:

DMSO to 100 mM

ethanol 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:

Hara et al (2009) Novel selective ligands for free fatty acid receptors GPR120 and GPR40. *Naunyn Schmiedebergs Arch.Pharmacol.* **380** 247. PMID: 19471906.

Atkinson et al (2002) MEDICA 16 inhibits hepatic acetyl-CoA carboxylase and reduces plasma triacylglycerol levels in insulin-resistant JCR:LA-cp rats. *Diabetes* **51** 1548. PMID: 11978655.

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