

Product Name: Orlistat

Catalog No.: 3540

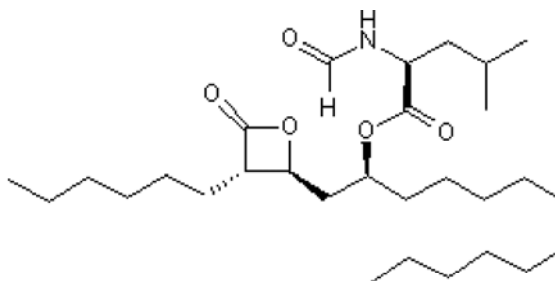
Batch No.: 3

CAS Number: 96829-58-2

IUPAC Name: *N*-Formyl-L-leucine (1*S*)-1-[[[(2*S*,3*S*)-3-hexyl-4-oxo-2-oxetanyl]methyl]dodecyl ester

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: C₂₉H₅₃NO₅
Batch Molecular Weight: 495.73
Physical Appearance: White solid
Solubility: DMSO to 100 mM
 ethanol to 100 mM
Storage: Desiccate at +4°C
Batch Molecular Structure:



2. ANALYTICAL DATA

HPLC: Shows 99.7% purity
¹H NMR: Consistent with structure
Mass Spectrum: Consistent with structure
Optical Rotation: [α]_D = -35.4 (Concentration = 1, Solvent = Chloroform)
Microanalysis:

	Carbon Hydrogen Nitrogen		
Theoretical	70.26	10.78	2.82
Found	70	10.8	2.84

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

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Description:

Hypolipemic pancreatic, gastric and carboxylester lipase inhibitor. Exhibits no activity at phospholipase A₂, liver esterase, trypsin and chymotrypsin. Inhibits the thioesterase domain of fatty acid synthase, leading to cell cycle arrest at the G₁/S boundary in vitro. Prevents the absorption of approximately one third of fat from food and exhibits progestrokinetic, antiobesity and antihypercholesterolemic activity in vivo.

Physical and Chemical Properties:

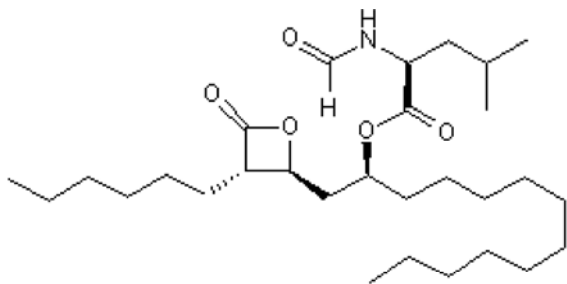
Batch Molecular Formula: C₂₉H₅₃NO₅

Batch Molecular Weight: 495.73

Physical Appearance: White solid

Minimum Purity: >99%

Batch Molecular Structure:



Storage: Desiccate at +4°C

CAUTION - This product is light sensitive and we recommend that the solid material and any solutions obtained are protected from exposure to light.

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:

Enc et al (2008) Orlistat accelerates gastric emptying and attenuates GIP release in healthy subjects. *Am.J.Physiol.Gastrointest.Liver Physiol.* **296** G482. PMID: 19109408.

Kridel et al (2004) Orlistat is a novel inhibitor of fatty acid synthase with antitumor activity. *Cancer Res.* **64** 2070. PMID: 15026345.

Hadvary et al (1991) The lipase inhibitor tetrahydrolipstatin binds covalently to the putative active site serine of pancreatic lipase. *J.Biol.Chem.* **266** 2021. PMID: 1899234.

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bio-techne.com

info@bio-techne.com

techsupport@bio-techne.com

North America

Tel: (800) 343 7475

China

info.cn@bio-techne.com

Tel: +86 (21) 52380373

Europe Middle East Africa

Tel: +44 (0)1235 529449

Rest of World

www.tocris.com/distributors

Tel:+1 612 379 2956