

Tetrahydrolipstatin PRODUCT DATA SHEET

issue date 01/06/2020

Product Name: Tetrahydrolipstatin

Product Number: T084

CAS Number: 96829-58-2 **Molecular Formula:** C₂₉H₅₃NO₅

Molecular Weight: 495.7

Appearance: White solid

Storage Conditions: -20°C

Description: Tetrahydrolipstatin (orlistat) is a semi-synthetic derivative of lipstatin, a

metabolite isolated from Streptomyces toxytricini. Tetrahydrolipstatin is widely

used for the treatment of obesity.

Tetrahydrolipstatin is soluble in ethanol, methanol, DMF and DMSO.

Mechanism of Action: Tetrahydrolipstatin acts as a potent, irreversible inhibitor of pancreatic lipase.

In vivo, it blocks the absorption of triglycerides while allowing fatty acid

absorption.

References: Lipstatin, an inhibitor of pancreatic lipase, produced by Streptomyces

toxytricini. I. Producing organism, fermentation, isolation and biological activity.

Weibel E. et al. J. Antibiot. 1987, 40, 1081.

Syntheses of tetrahydrolipstatin and absolute configuration of

tetrahydrolipstatin and lipstatin. Barbier P. et al. Helv. Chim. Acta 1987, 70,

196.

The total synthesis of (–)-tetrahydrolipstatin. Bodkin J. et al. Aust. J. Chem

2003, 56, 795.

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