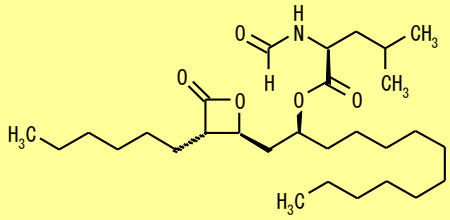
Orlistat

Cat.# BLK0830

Structure



Origin:

CAS Registry Number: 96829-58-2

CA Index Name: 【Tetrahydrolipstatin】【N-Formyl-L-leucine-(1S)-1-(((2S,3S)-3-hexyl-4-oxo-2-oxetanyl)methyl)dodecyl Ester】

Appearance: white solid

Molecular Formula/ Weight: C29H53NO5=495.74

Melting Point: 41-42℃ | **Purity:** % by

Solubility: Soluble in 1mg/ml ethanol, methanol, DMSO

pKa: | **log P:**

Background Information:

Cell permeable, irreversible inhibitor of gastric and pancreatic lipases. Shows only minimal activity against amylase, trypsin, chymotrypsin, or phospholipase A2 (PLA2). Partially inhibits the hydrolysis of triglycerides and lowers the absorption of dietary fat and promotes weight loss. Anti-obesity drug. Exhibits antitumor activity by inhibition of the thioesterase domain of fatty acid synthase (FAS) both in vitro and in vivo.

Handling and Storage:

Store at -20℃.

References:

Interactions of lipoprotein lipase with the active-site inhibitor tetrahydrolipstatin (Orlistat): A. Lookene, et al.; Eur. J. Biochem. 222, 395 (1994)

Degree of in vivo inhibition of human gastric and pancreatic lipases by Orlistat (Tetrahydrolipstatin, THL) in the stomach and small intestine: B. Sternby, et al.; Clin. Nutr. 21, 395 (2002)

A fatty acid synthase blockade induces tumor cell-cycle arrest by down-regulating Skp2: L.M. Knowles, et al.; J. Biol. Chem. 279, 30540 (2004)