Web: www.taiclone.com
Tel: +886-2-2735-9682
Email: order@taiclone.com

Atglistatin

Catalog No: tcsc2406

Available Sizes

Size: 5mg

Size: 10mg

Size: 50mg

Size: 100mg

Specifications

CAS No:
1469924-27-3

Formula:
$C_{17}H_{21}N_3O$

Pathway:
Metabolic Enzyme/Protease

Target:
ATGL

Purity / Grade:
>98%

Solubility:
DMSO : ≥ 45 mg/mL (158.80 mM)

Observed Molecular Weight:
283.37

Product Description

Atglistatin is a selective adipose triglyceride lipase (**ATGL**) inhibitor with **IC_{50}**

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of 0.7 μM for lipolysis in vitro.

IC50 & Target: IC50: 0.7 μM (ATGL)[1]

In Vitro: Atglistatin inhibits Triacylglycerol (TG) hydrolase activity of wild-type white adipose tissue (WAT) in a dose-dependent manner up to 78% at the highest concentration. In comparison to wild-type preparations, TG hydrolase activity in WAT lysates from ATGL-ko animals is reduced by approximately 70% and Atglistatin had only a moderate effect on the residual activity. The combined use of Atglistatin and the hormone-sensitive lipase (HSL) inhibitor Hi 76-0079 leads to an almost complete inhibition (-95%) of TG hydrolase activity of WAT which implicates that most of the non-ATGL activity can be ascribed to HSL[1].

In Vivo: Animals receive Atglistatin dissolved in olive oil by oral gavage. After application, blood and tissues are collected for determination of plasma parameters, tissue Triacylglycerol (TG) levels, and inhibitor concentrations. Time-course experiments revealed that the lipolytic parameters fatty acids (FA) and glycerol are reduced 4 and 8 hours after application and returned to normal after 12 hours. Eight hours after treatment, a dose-dependent decrease is observed in FA and glycerol levels up to 50% and 62%, respectively. Atglistatin also caused a strong reduction in plasma TG levels (-43%) while blood glucose, total cholesterol, ketone bodies, and insulin levels do not significantly change. Dose and time-dependent inhibition of lipolysis is also observed in response to intraperitoneal injection of Atglistatin[1].