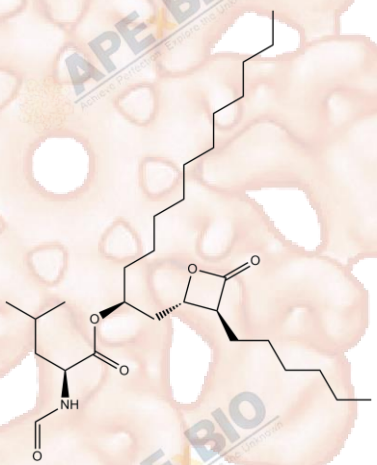
Product Data Sheet

Orlistat



Cat. No.:	A8492
CAS No.:	96829-58-2
Formula:	C29H53NO5
M.Wt:	495.73
Synonyms:	
Target:	Others
Pathway:	Others
Storage:	Store at -20°C

Solvent & Solubility

In Vitro

insoluble in H2O; ⩾17.4 mg/mL in DMSO; ⩾26.8 mg/mL in EtOH

Preparing Stock Solutions

Concentration \ Mass / Solvent	1mg	5mg	10mg
1 mM	2.0172 mL	10.0861 mL	20.1723 mL
5 mM	0.4034 mL	2.0172 mL	4.0345 mL
10 mM	0.2017 mL	1.0086 mL	2.0172 mL

Please refer to the solubility information to select the appropriate solvent.

Biological Activity

Shortsummary	Lipase inhibitor for obesity treatment
IC_{50} & Target	

In Vitro

Cell Viability Assay

Cell Line:	Jurkat CD4+ T cell leukemia cell line
Preparation method:	The solubility of this compound in DMSO is > 17.4 mg/mL. General tips for obtaining a higher concentration: Please warm the tube at 37 °C for 10 minutes and/or shake it in the ultrasonic bath for a while. Stock solution can be stored below - 20 °C for several months.

	Reacting conditions:	2.5, 5, 10, 20 or 40 μM; 1 ~ 3 days
	Applications:	In Jurkat CD4+ T cell leukemia cell line, Orlistat, at the concentration of 40 μM, reduced O6-methylguanine-DNA methyltransferase (MGMT) expression by > 50% on day 2, whereas little or no effect was observed when lower concentrations were applied. The effect of Orlistat persisted on day 3. However, on day 1, Orlistat did not remarkably change the MGMT level.
In Vivo	**Animal experiment**	
	Animal models:	Nude mice bearing PC-3 tumors
	Dosage form:	155 mg/kg or 240 mg/kg/day; i.p.
	Applications:	In nude mice bearing PC-3 tumors, Orlistat at the dose of 240 mg/kg/day inhibited tumor growth and induced tumor cell apoptosis. A pharmacokinetic study of Orlistat (155 mg/kg) administered by i.p. injection showed the peak blood level of Orlistat (~10 μM) achieved 2 hrs after dosing. After 2hrs, the blood level of Orlistat decreased rapidly.
	Other notes:	Please test the solubility of all compounds indoor, and the actual solubility may slightly differ with the theoretical value. This is caused by an experimental system error and it is normal.

Product Citations

See more customer validations on www.apexbt.com.

References

[1]. Cioccoloni G, Bonmassar L, Pagani E, Caporali S, Fuggetta MP, Bonmassar E, D'Atri S, Aquino A. Influence of fatty acid synthase inhibitor orlistat on the DNA repair enzyme O6-methylguanine-DNA methyltransferase in human normal or malignant cells in vitro. Int J Oncol. 2015 Aug;47(2):764-72.

[2]. Kridel SJ, Axelrod F, Rozenkrantz N, Smith JW. Orlistat is a novel inhibitor of fatty acid synthase with antitumor activity. Cancer Res. 2004 Mar 15;64(6):2070-5.

Caution

FOR RESEARCH PURPOSES ONLY.

NOT FOR HUMAN, VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

Specific storage and handling information for each product is indicated on the product datasheet. Most APExBIO products are stable under the recommended conditions. Products are sometimes shipped at a temperature that differs from the recommended storage temperature. Shortterm storage of many products are stable in the short-term at temperatures that differ from that required for long-term storage. We ensure that the product is shipped under conditions that will maintain the quality of the reagents. Upon receipt

of the product, follow the storage recommendations on the product data sheet.

APExBIO Technology
www.apexbt.com
7505 Fannin street, Suite 410, Houston, TX 77054.
Tel: +1-832-696-8203 | Fax: +1-832-641-3177 | Email: info@apexbt.com