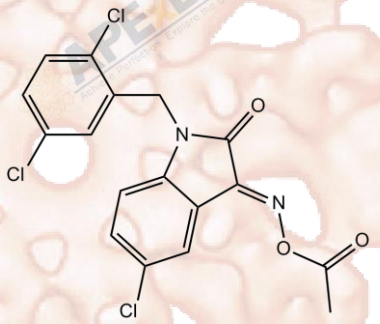
Product Data Sheet

LDN 57444

Cat. No.: A4003
CAS No.: 668467-91-2
Formula: C17H11Cl3N2O3
M.Wt: 397.64
Synonyms:
Target: Ubiquitination/ Proteasome
Pathway: DUB
Storage: Desiccate at 4°C



Solvent & Solubility

In Vitro

insoluble in EtOH; insoluble in H2O; ⩾16.7 mg/mL in DMSO with gentle warming

Preparing Stock Solutions

Concentration \ Mass / Solvent	1mg	5mg	10mg
1 mM	2.5148 mL	12.5742 mL	25.1484 mL
5 mM	0.5030 mL	2.5148 mL	5.0297 mL
10 mM	0.2515 mL	1.2574 mL	2.5148 mL

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

Biological Activity

Shortsummary	UCH-L1 inhibitor,reversible competitve
IC_{50} & Target	0.4 μM (Ki) (UCH-L1)

In Vitro

Cell Viability Assay

Cell Line:	Rat insulinoma cell line INS 832/13, SK-N-SH cells
Preparation method:	The solubility of this compound in DMSO is >16.7mg/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:	30 μM, 24 h

	Applications:	In rat insulinoma cell line INS 832/13, LDN 57444 induced cell apoptosis. LDN 57444 (>30 μM) increased the activity of caspase-3. LDN 57444 induced nuclear CHOP, suggesting that the apoptosis induced by the inhibition of Uch-L1. In SK-N-SH cells, LDN 57444 (25-100 μM) induced apoptotic cell death in SK-N-SH cells. LDN 57444 triggered the endoplasmic reticulum stress in SK-N-SH cells.
In Vivo	**Animal experiment**	
	Animal models:	APP/PS1 Mice
	Dosage form:	Intraperitoneal injection, 0.4 mg/kg
	Applications:	LDN 57444 caused dramatic alterations in synaptic protein distribution and spine morphology in vivo. Treatment with LDN 57444 resulted in a rapid fall of Uch-L1 activity.
	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]. Gong B, Cao Z, Zheng P, et al. Ubiquitin hydrolase Uch-L1 rescues β-amyloid-induced decreases in synaptic function and contextual memory[J]. Cell, 2006, 126(4): 775-788.

[2]. Tan Y Y, Zhou H Y, Wang Z Q, et al. Endoplasmic reticulum stress contributes to the cell death induced by UCH-L1 inhibitor[J]. Molecular and cellular biochemistry, 2008, 318(1-2): 109-115.

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.

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