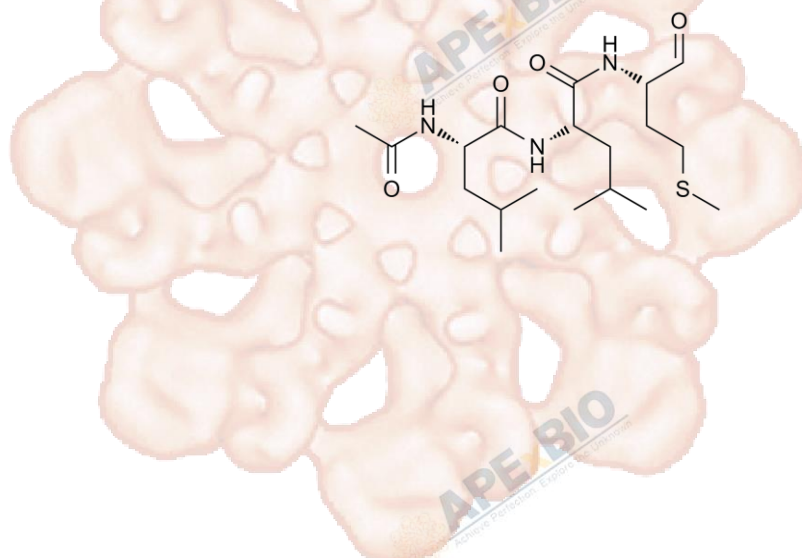


## Calpain Inhibitor II, ALLM

<b>Cat. No.:</b>	A2603
<b>CAS No.:</b>	136632-32-1
<b>Formula:</b>	C <sub>19</sub> H <sub>35</sub> N <sub>3</sub> O <sub>4</sub> S
<b>M.Wt:</b>	401.57
<b>Synonyms:</b>	N-Acetyl-Leu-Leu-Methional
<b>Target:</b>	Proteases
<b>Pathway:</b>	Calpains
<b>Storage:</b>	Store at -20°C



### Solvent & Solubility

insoluble in H<sub>2</sub>O;  $\geq 14.85$  mg/mL in DMSO;  $\geq 20.27$  mg/mL in EtOH

In Vitro

Preparing Stock Solutions	Solvent		Mass		
	Concentration		1mg	5mg	10mg
	1 mM		2.4902 mL	12.4511 mL	24.9023 mL
	5 mM		0.4980 mL	2.4902 mL	4.9805 mL
	10 mM		0.2490 mL	1.2451 mL	2.4902 mL

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

### Biological Activity

Shortsummary

Calpain inhibitor

IC<sub>50</sub> & Target

120 nM (Ki) (calpain I), 230 nM (Ki) (calpain II), 0.6 nM (Ki) (cathepsin L), 100 nM (Ki) (cathepsin B)

#### Cell Viability Assay

In Vitro

Cell Line:	Acute lymphoblastic leukemia (ALL) cell lines (ALL-1, RS4;11, and JURKAT) and non-Hodgkin's lymphoma (NHL) cell lines (RAMOS and DAUDI)
Preparation method:	The solubility of this compound in DMSO is >10 mM. 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:	50 or 100 $\mu$ M; 24 hrs
	Applications:	At the dose of 50 or 100 $\mu$ M, Calpain inhibitor II induced apoptosis in ALL (ALL-1, RS4;11, and JURKAT) and NHL (RAMOS and DAUDI) cell lines. Additionally, studies had shown that neither BTK nor LYN were required for Calpain inhibitor II induced apoptosis. Calpain inhibition with Calpain inhibitor II had been demonstrated to activate an apoptosis-promoting caspase system.
In Vivo	<b>Animal experiment</b>	
	Applications:	

## Product Citations

1. Ednie AR, Parrish AR, et al. "Reduced hybrid/complex N-glycosylation disrupts cardiac electrical signaling and calcium handling in a model of dilated cardiomyopathy." J Mol Cell Cardiol. 2019 Jul;132:13-23.PMID:31071333
2. Li W, Liu BD, et al. "Alteration of Androgen Receptor Protein Stability by Triptolide in LNCaP Cells." Medicina (Kaunas). 2018 May 30;54(3). pii: E39.PMID:30344270
3. Chen Y, Yu Y, et al. "Bradykinin promotes migration and invasion of hepatocellular carcinoma cells through TRPM7 and MMP2." Exp Cell Res. 2016 Sep 29.PMID:27693494

See more customer validations on [www.apexbt.com](http://www.apexbt.com).

## References

- [1]. Zhu DM1, Uckun FM. Calpain inhibitor II induces caspase-dependent apoptosis in human acute lymphoblastic leukemia and non-Hodgkin's lymphoma cells as well as some solid tumor cells. Clin Cancer Res. 2000 Jun;6(6):2456-63.

## 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](http://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](mailto:info@apexbt.com)

