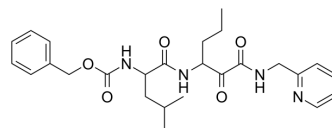


## (Rac)-Calpain Inhibitor XII

Cat. No.:	HY-116171
CAS No.:	181769-57-3
Molecular Formula:	C <sub>26</sub> H <sub>34</sub> N <sub>4</sub> O <sub>5</sub>
Molecular Weight:	482.57
Target:	Proteasome
Pathway:	Metabolic Enzyme/Protease
Storage:	-20°C, stored under nitrogen * In solvent : -80°C, 6 months; -20°C, 1 month (stored under nitrogen)



### SOLVENT & SOLUBILITY

#### In Vitro

DMSO : 16 mg/mL (33.16 mM; Need ultrasonic and warming)

Preparing Stock Solutions	Solvent Concentration	Mass		
		1 mg	5 mg	10 mg
	1 mM	2.0722 mL	10.3612 mL	20.7224 mL
	5 mM	0.4144 mL	2.0722 mL	4.1445 mL
	10 mM	0.2072 mL	1.0361 mL	2.0722 mL

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

### BIOLOGICAL ACTIVITY

#### Description

(Rac)-Calpain Inhibitor XII is a reversible and selective inhibitor of calpain I ( $\mu$ -calpain,  $K_i=19$  nM). (Rac)-Calpain Inhibitor XII has lower affinities for calpain II (m-calpain,  $K_i=120$  nM) and cathepsin B ( $K_i=750$  nM). (Rac)-Calpain Inhibitor XII has the potential for studying the role of calpains in diverse processes, including neutrophil chemotaxis, neuronal signaling, and cardiac response to injury<sup>[1]</sup>.

### REFERENCES

[1]. Z Li, et al. Novel peptidyl alpha-keto amide inhibitors of calpains and other cysteine proteases. J Med Chem. 1996 Sep 27;39(20):4089-98.

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**Caution: Product has not been fully validated for medical applications. For research use only.**

Tel: 609-228-6898

Fax: 609-228-5909

E-mail: [tech@MedChemExpress.com](mailto:tech@MedChemExpress.com)

Address: 1 Deer Park Dr, Suite Q, Monmouth Junction, NJ 08852, USA