ALLM

Cat. No.: HY-118355

CAS No.: 110115-07-6

Molecular Formula: $C_{19}H_{35}N_3O_4S$

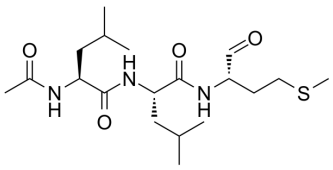
Molecular Weight: 401.56

Target: Proteasome; Cathepsin

Pathway: Metabolic Enzyme/Protease

Storage:

Powder	-20°C	3 years
In solvent	-80°C	6 months
	-20°C	1 month



SOLVENT & SOLUBILITY

In Vitro

DMF : ≥ 20 mg/mL (49.81 mM)
Ethanol : ≥ 20 mg/mL (49.81 mM)
DMSO : ≥ 20 mg/mL (49.81 mM)
* "≥" means soluble, but saturation unknown.

Preparing Stock Solutions

Solvent / Mass / Concentration	1 mg	5 mg	10 mg
1 mM	2.4903 mL	12.4514 mL	24.9029 mL
5 mM	0.4981 mL	2.4903 mL	4.9806 mL
10 mM	0.2490 mL	1.2451 mL	2.4903 mL

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

BIOLOGICAL ACTIVITY

Description

ALLM (Calpain inhibitor II) is a potent inhibitor of calpain and cathepsin proteases. ALLM inhibits neuronal cell death and improves chronic neurological function after spinal cord injury (SCI)[1][2].

In Vivo

ALLM (Calpain inhibitor II) (0.5 mg/kg) is injected every 24 h for 5 days after SCI and inhibits the activation of calpain but not that of caspase 3. ALLM prevents this neuronal cell death[2].
ALLM (0.05-2.5 mg/kg; i.p.; every 24 h for 1 week) reduces motor disturbances after spinal cord injury (SCI)[2].
MCE has not independently confirmed the accuracy of these methods. They are for reference only.

Animal Model:	Adult male Wistar rats (280-300g) (spinal cord injury model)[2]
Dosage:	0.05, 0.5, and 2.5 mg/kg
Administration:	Intraperitoneally; every 24 h for 1 week

Result:	Showed significantly better motor function.

REFERENCES

[1]. Stangl V, et al. Long-term up-regulation of eNOS and improvement of endothelial function by inhibition of the ubiquitin-proteasome pathway. FASEB J. 2004 Feb;18(2):272-9.

[2]. Arataki S, et al. Calpain inhibitors prevent neuronal cell death and ameliorate motor disturbances after compression-induced spinal cord injury in rats. J Neurotrauma. 2005 Mar;22(3):398-406.

Tel: 609-228-6898 Fax: 609-228-5909 E-mail: tech@MedChemExpress.com

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