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Produktinformation



Forschungsprodukte & Biochemikalien



Zellkultur & Verbrauchsmaterial



Diagnostik & molekulare Diagnostik



Laborgeräte & Service

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See the following pages for more information!



Lieferung & Zahlungsart

siehe unsere [Liefer- und Versandbedingungen](#)

Zuschläge

- Mindermengenzuschlag
- Trockeneiszuschlag
- Gefahrgutzuschlag
- Expressversand

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Calpeptin

Chemical Properties

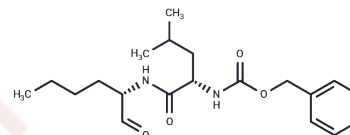
CAS No. : 117591-20-5

Formula: C₂₀H₃₀N₂O₄

Molecular Weight: 362.46

Appearance: no data available

Storage: store at low temperature
Powder: -20°C for 3 years | In solvent: -80°C for 1 year



Biological Description

Description	Calpeptin is a potent, cell-permeable calpain inhibitor.
Targets(IC50)	Apoptosis,Cysteine Protease,Proteasome
In vitro	Calpeptin inhibits 20K phosphorylation in a dose-related manner in platelets stimulated by thrombin, ionomycin or collagen. [1] In differentiating PC12 cells, Calpeptin promotes neurite elongation via inhibition of Calpain activity. [2] In rat retinal ganglion cells, Calpeptin attenuates apoptosis, maintains normal whole-cell membrane potential, and thus provides functional neuroprotection. [3]
In vivo	In a feline right ventricular (RV) PO (RVPO) model, calpeptin (0.6 mg/kg, i.v.) blocks the activation of calpain and caspase-3, cleavage of their substrates, and cardiomyocyte programmed cell death. [4] In a rat focal cerebral ischemia-reperfusion injury model, Calpeptin reduces the neuronal apoptosis in hippocampal CA1 sector via inhibition of the expression of Caspase-3. [5]

Solubility Information

Solubility	Ethanol: 67 mg/mL (184.8 mM), DMSO: 80 mg/mL (220.71 mM),Sonication is recommended. H ₂ O: < 1 mg/mL (insoluble or slightly soluble), < 1 mg/ml refers to the product slightly soluble or insoluble)
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Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	2.7589 mL	13.7946 mL	27.5893 mL
5 mM	0.5518 mL	2.7589 mL	5.5179 mL
10 mM	0.2759 mL	1.3795 mL	2.7589 mL
50 mM	0.0552 mL	0.2759 mL	0.5518 mL

Please select the appropriate solvent to prepare the stock solution, according to the solubility of the product in different solvents. Please use it as soon as possible.

Reference

Chen Y, Chen L, Wu X, et al. Acute liver steatosis translationally controls the epigenetic regulator MIER1 to promote liver regeneration in a study with male mice. *Nature Communications*. 2023, 14(1): 1521.

Inhibitor · Natural Compounds · Compound Libraries · Recombinant Proteins

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