

PRODUCT INFORMATION



Ac-Calpastatin (184-210)

Item No. 16501

CAS Registry No.: 79079-11-1

Synonym: Calpastatin Peptide B27-WT

MF: $C_{142}H_{230}N_{36}O_{44}S$

FW: 3,177.7

Purity: $\geq 98\%$

Supplied as: A lyophilized powder

Storage: $-20^{\circ}C$

Stability: ≥ 4 years

Ac — Asp — Pro — Met — Ser — Ser — Thr — Tyr — Ile — Glu

Glu — Leu — Gly — Lys — Arg — Glu — Val — Thr — Ile — Pro

Pro — Lys — Tyr — Arg — Glu — Leu — Leu — Ala — NH_2

Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

Laboratory Procedures

Ac-calpastatin (184-210) is supplied as a lyophilized powder. A stock solution may be made by dissolving the Ac-calpastatin (184-210) in water. The solubility of Ac-calpastatin (184-210) in water is approximately 1 mg/ml. We do not recommend storing the aqueous solution for more than one day.

Description

The calpains are a family of calcium-dependent cysteine proteases, with calpain I (μ -calpain) requiring micromolar calcium and calpain II (m-calpain) requiring millimolar calcium.¹ Ac-calpastatin (184-210) is an acetylated synthetic peptide from human calpastatin that strongly inhibits both calpains I and II but not papain (a cysteine protease) or trypsin (a serine protease).² This 27 amino acid peptide is encoded by exon 1B of Ac-calpastatin (184-210) and corresponds to a portion of inhibitory domain 1.^{2,3}

References

1. Goll, D.E., Thompson, V.F., Li, H., *et al.* The calpain system. *Physiol. Rev.* **83**(3), 731-801 (2003).
2. Maki, M., Bagci, H., Hamaguchi, K., *et al.* Inhibition of calpain by synthetic oligopeptide corresponding to an exon of the human calpastatin gene. *J. Biol. Chem.* **264**(32), 18866-18869 (1999).
3. Betts, R., Weinsheimer, S., Blouse, G.E., *et al.* Structural determinants of the calpain inhibitory activity of calpastatin peptide B27-WT. *J. Biol. Chem.* **278**(10), 7800-7809 (2003).

WARNING

THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

SAFETY DATA

This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the complete Safety Data Sheet, which has been sent via email to your institution.

WARRANTY AND LIMITATION OF REMEDY

Buyer agrees to purchase the material subject to Cayman's Terms and Conditions. Complete Terms and Conditions including Warranty and Limitation of Liability information can be found on our website.

Copyright Cayman Chemical Company, 11/30/2022

CAYMAN CHEMICAL

1180 EAST ELLSWORTH RD

ANN ARBOR, MI 48108 · USA

PHONE: [800] 364-9897

[734] 971-3335

FAX: [734] 971-3640

CUSTSERV@CAYMANCHEM.COM

WWW.CAYMANCHEM.COM