



Product Datasheet

Product Name	μ -Calpain
Cata No	CB500984
Source	<i>Human Erythrocytes</i>
Synonyms	Calpain-1 catalytic subunit, EC 3.4.22.52, Calpain-1 large subunit, Calcium-activated neutral proteinase 1, Calpain mu-type, muCANP, Micromolar-calpain, Cell proliferation-inducing gene 30 protein, CANP 1, CAPN1, CANPL1, PIG30, CANP, muCL, CANP1.

Description

Calpain's activity is attributed to two main isoforms: μ -calpain and m-calpain, which are ubiquitously expressed proteases implicated in cellular migration, cell cycle progression, degenerative processes and cell death. These heterodimeric enzymes are composed of distinct catalytic subunits, encoded by *Capn1* (μ -calpain) or *Capn2* (m-calpain), and a common regulatory subunit encoded by *Capn4*. CAPN1 is a calcium-regulated non-lysosomal thiol-protease which catalyzes limited proteolysis of the substrates involved in cytoskeletal remodeling and signal transduction. CAPN1 is activated by micromolar concentrations of calcium and inhibited by calpastatin.

μ -Calpain consists of an 80-kDa large subunit and a 30 kDa small subunit.

μ -Calpain was purified by sequential chromatography through DEAE-Sepharose, A1.5m Bio-Gel, and Phenyl-Sepharose CL-4B columns.

Physical Appearance

Sterile Filtered colorless solution.

Purity

Greater than 90% as determined by SDS-PAGE.

Formulation

50mM imidazole-HCl, 100mM NaCl, 5mM EGTA, 1mM DTT and 10% sucrose.

Stability

μ -Calpain although stable at 10°C for 1 week, should be stored desiccated below -18°C.

For long term storage it is recommended to add a carrier protein (0.1% HSA or BSA).

Please prevent freeze-thaw cycles.

Applications

This protein can be used for immunoblots, absorption experiments in immunohistochemistry, radioimmunoassay and intracellular injection.

For adsorption we suggest the following procedure:

A- Dilute 1 μ l of the antiserum against μ -calpain in 1ml of the usual buffer for immunohistochemistry (final dilution 1:1000).

B- Add 1 μ g of protein to 1ml of the diluted antibody solution and mix well.

C- Incubate for at least 6 hours in the cold.

D- Apply to tissue-sections and incubate for 3 days.

E - Complete the immunohistochemical reaction as usual (biotinylated second antibody, ABC-complex, DAB).

As a result, the immunostaining should be strongly reduced or even completely prevented.

*** For Non-Clinical Research Use Only ***



California Bioscience

83103 Avenue 48, Ste.1B #204
Coachella, CA 92236 USA
Phone : +1.6268339877
Email : info@cali-bio.com

Product Datasheet

*** For Non-Clinical Research Use Only ***