CAPN1
Native Human Calpain 1

Catalog No.	CRC118A	**Quantity:**	2 µg
	CRC118B		5 µg
	CRC118C		10 µg

Alternate Names: 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: CAPN1 consists of an 80 kDa large subunit and a 30 kDa small subunit.
CAPN1 was purified by sequential chromatography through DEAE-Sepharose, A1.5 m Bio-Gel, and Phenyl-Sepharose CL-4B columns.
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.

Gene ID: 823

Source: Human Erythrocytes.

Physical Appearance: Sterile Filtered colorless solution.

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

Purity: Greater than 90% as determined by SDS-PAGE.

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 µl of the antiserum against µ-calpain in 1 ml of the usual buffer for immunohistochemistry (final dilution 1:1000).
B- Add 1 µg of protein to 1 ml 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.

Storage & Stability: CAPN1 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.

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