

## Basic Information

Product Name	Anti-Calpain 1/CAPN1 Antibody	
Gene Name	CAPN1	
Source	Rabbit	
Clonality	Polyclonal	
Isotype	IgG	
Species Reactivity	human, mouse, rat	
Tested Application	WB, IHC, ICC/IF	
Contents	500 ug/ml antibody with PBS, 0.02% NaN <sub>3</sub> , 1 mg/ml BSA and 50% glycerol.	
Immunogen	A synthetic peptide corresponding to a sequence in the middle region of human Calpain 1, different from the mouse sequence by two amino acids.	
Concentration	500 ug/ml	
Purification	Immunogen affinity purified.	
Observed MW	82 kDa	
Dilution Ratios	Western blot (WB): 1:500-2000 Immunohistochemistry (IHC): 1:50-400 Immunocytochemistry/Immunofluorescence (ICC/IF): 1:50-400 (Boiling the paraffin sections in 10mM citrate buffer, pH6.0, or PH8.0 EDTA repair liquid for 20 mins is required for the staining of formalin/paraffin sections.) Optimal working dilutions must be determined by end user.	

## Storage

12 months from date of receipt, -20°C as supplied.

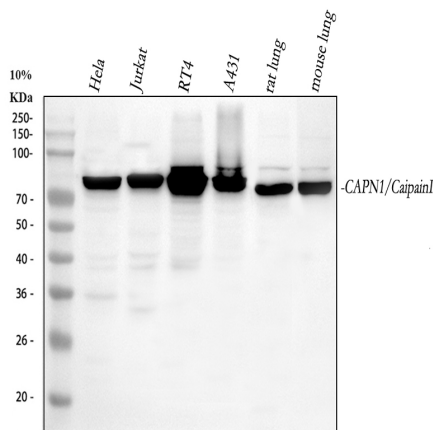
## Background Information

Calpain-1 catalytic subunit is a protein that in humans is encoded by the CAPN1 gene. Calpain is an intracellular protease that requires calcium for its catalytic activity. Two isozymes, calpain I(mu-calpain) and calpain II(m-calpain), with different calcium requirements, have been identified. Both are heterodimers composed of L(large, catalytic, 80 kD) and S(small, regulatory, 30 kD) subunits. The isozymes share an identical S subunit, with the differences arising from the L subunits, L1(CAPN1) and L2. By quantitative RT-PCR, Ueyama et al.(1998) found that expression of calpain-1 and calpain-2 mRNA was significantly increased in muscle biopsy samples derived from 5 men with progressive muscular dystrophy(e.g., DMD; 310200) and 2 men and 3 women with amyotrophic lateral sclerosis(ALS; 105400) compared with controls. Using cDNA clones as probes, Ohno et al.(1989, 1990) assign CANPL1 to chromosome 11.

## Reference

Anti-Calpain 1/CAPN1 Antibody被引用在4文献中。

## Selected Validation Data



Western blot analysis of Calpain 1/CAPN1 using anti-Calpain 1/CAPN1 antibody (BA0679). The sample well of each lane was loaded with 30 ug of sample under reducing conditions.

Lane 1: human Hela whole cell lysates,

Lane 2: human Jurkat whole cell lysates,

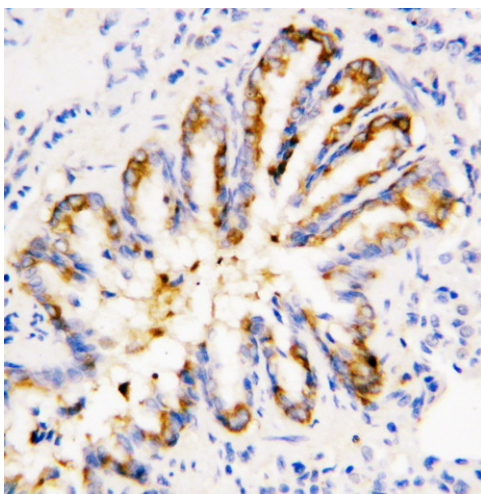
Lane 3: human RT4 whole cell lysates,

Lane 4: human A431 whole cell lysates,

Lane 5: rat lung tissue lysates,

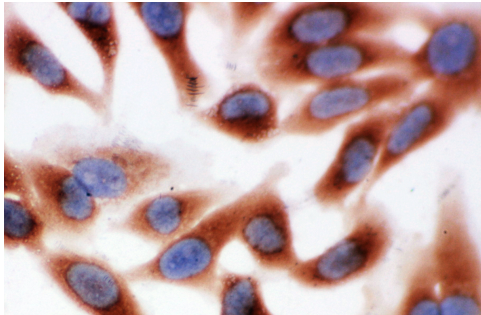
Lane 6: mouse lung tissue lysates.

After electrophoresis, proteins were transferred to a membrane. Then the membrane was incubated with rabbit anti-Calpain 1/CAPN1 antigen affinity purified polyclonal antibody (BA0679) at a dilution of 1:1000 and probed with a goat anti-rabbit IgG-HRP secondary antibody (Catalog # BA1054). The signal is developed using ECL Plus Western Blotting Substrate (Catalog # AR1197). A specific band was detected for Calpain 1/CAPN1 at approximately 82 kDa. The expected band size for Calpain 1/CAPN1 is at 82 kDa.



IHC analysis of Calpain 1/CAPN1 using anti-Calpain 1/CAPN1 antibody (BA0679).

Calpain 1/CAPN1 was detected in a paraffin-embedded section of rat lung tissue. Biotinylated goat anti-rabbit IgG was used as secondary antibody. The tissue section was incubated with rabbit anti-Calpain 1/CAPN1 Antibody (BA0679) at a dilution of 1:200 and developed using Streptavidin-Biotin-Complex (SABC) (Catalog # SA1022) with DAB (Catalog # AR1027) as the chromogen.



ICC analysis of Calpain 1/CAPN1 using anti- Calpain 1/CAPN1 antibody (BA0679).

Calpain 1/CAPN1 was detected in an immunocytochemical section of HeLa cells. The section was incubated with rabbit anti-Calpain 1/CAPN1 Antibody (BA0679) at a dilution of 1:100. Biotinylated goat anti-rabbit IgG was used as secondary antibody. The section was developed using Streptavidin-Biotin-Complex (SABC)(Catalog # SA1022) with DAB (Catalog # AR1027) as the chromogen.