

# CAPN6 Antibody

Catalog # ASC10748

## Product Information

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<b>Application</b>	WB, IF, E, IHC-P
<b>Primary Accession</b>	<a href="#">Q9Y6Q1</a>
<b>Other Accession</b>	<a href="#">NP_055104</a> , <a href="#">13186316</a>
<b>Reactivity</b>	Human, Mouse, Rat
<b>Host</b>	Rabbit
<b>Clonality</b>	Polyclonal
<b>Isotype</b>	IgG
<b>Calculated MW</b>	74576
<b>Concentration (mg/ml)</b>	1 mg/mL
<b>Conjugate</b>	Unconjugated
<b>Application Notes</b>	CAPN6 antibody can be used for the detection of StrepII by Western blot at 0.5 - 1 $\mu$ g/mL. Antibody can also be used for immunohistochemistry starting at 2.5 $\mu$ g/mL. For immunofluorescence start at 20 $\mu$ g/mL.

## Additional Information

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<b>Gene ID</b>	827
<b>Other Names</b>	Calpain-6, Calpain-like protease X-linked, Calpamodulin, CalpM, CAPN6, CALPM, CANPX
<b>Target/Specificity</b>	CAPN6;
<b>Reconstitution &amp; Storage</b>	CAPN6 antibody can be stored at 4°C for three months and -20°C, stable for up to one year. As with all antibodies care should be taken to avoid repeated freeze thaw cycles. Antibodies should not be exposed to prolonged high temperatures.
<b>Precautions</b>	CAPN6 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

## Protein Information

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<b>Name</b>	CAPN6
<b>Synonyms</b>	CALPM, CANPX
<b>Function</b>	Microtubule-stabilizing protein that may be involved in the regulation of microtubule dynamics and cytoskeletal organization. May act as a regulator of RAC1 activity through interaction with ARHGEF2 to control lamellipodial formation and cell mobility. Does not seem to have protease activity as it has lost the active site residues (By similarity).
<b>Cellular Location</b>	Cytoplasm, perinuclear region. Cytoplasm, cytoskeleton, spindle. Note=During

mitose associated with the mitotic spindle. At telophase colocalized to the midbody spindle

#### Tissue Location

Expressed only in placenta.

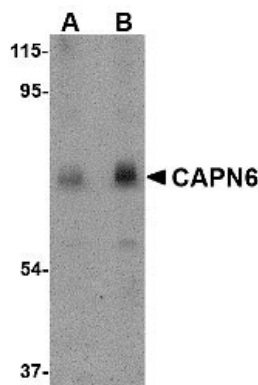
## Background

CAPN6 Antibody: Calpains make up a ubiquitously expressed, well-conserved family of calcium-dependent cysteine proteases. The calpain proteins are heterodimers consisting of an invariant small subunit and variable large subunits. This large subunit possesses a cysteine protease domain, and both subunits possess calcium-binding domains. Calpains have been implicated in neurodegenerative processes as their activation can be triggered by calcium influx and oxidative stress. Calpain 6 (CAPN6) is most similar to Calpain 5; the C-terminal region of CAPN6 lacks homology to the calmodulin-like domain of other vertebrate calpains. CAPN6 is thought to be involved in the regulation of microtubule dynamics and cytoskeletal organization. CAPN6 has also been recently identified as an HIV dependency factor (HDF), suggesting that CAPN6 may be an important drug target in HIV treatment.

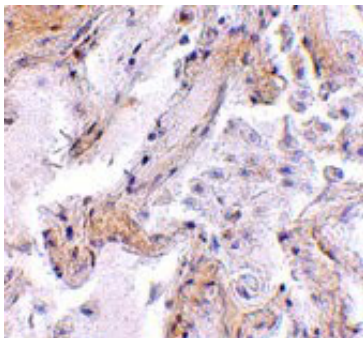
## References

Croall DE and Ersfeld K. The calpains: modular designs and functional diversity. *Genome Biol.*2007; 8:216.  
Dear N, Matena K, Vingron M, et al. A new subfamily of vertebrate calpains lacking a calmodulin-like domain: implications for calpain regulation and evolution. *Genomics*1997; 45:175-84.  
Tonami K, Kurihara Y, Aburatani J, et al. Calpain 6 is involved in microtubule stabilization and cytoskeletal organization. *Mol. Cell. Biol.*2007; 27:2548-61.  
Brass AL, Dykxhoorn DM, Benita Y, et al. Identification of host proteins required for HIV infection through a functional genomic screen. *Science*2008; 319:921-6.

## Images

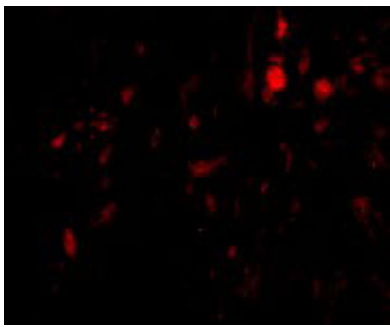


Western blot analysis of CAPN6 in rat lung tissue lysate with CAPN6 antibody at (A) 0.5 and (B) 1  $\mu$ g/mL.



Immunohistochemistry of CAPN6 in human lung tissue with CAPN6 antibody at 2.5  $\mu$ g/mL.

Immunofluorescence of CAPN6 in Human Lung cells with CAPN6 antibody at 20  $\mu$ g/mL.



Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.