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CAPN6 Antibody

Catalog # ASC10748

Product Information

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

Additional Information

Gene ID	827
Other Names	Calpain-6, Calpain-like protease X-linked, Calpamodulin, CalpM, CAPN6, CALPM, CANPX
Target/Specificity	CAPN6;
Reconstitution & Storage	CAPN6 antibody can be stored at 4℃ for three months and -20℃, 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.
Precautions	CAPN6 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	CAPN6
Synonyms	CALPM, CANPX
Function	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).
Cellular Location	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.

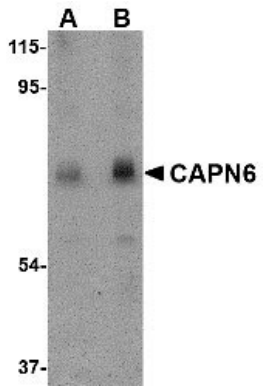
Background

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.

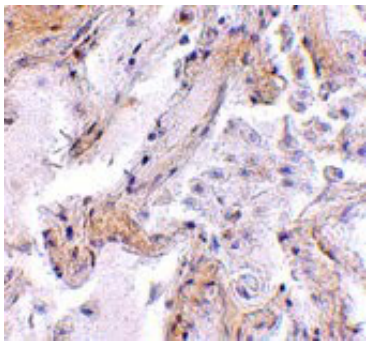
References

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. Genomics1997; 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. Science2008; 319:921-6.

Images

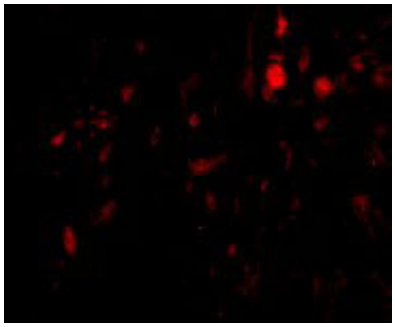


Western blot analysis of CAPN6 in rat lung tissue lysate with CAPN6 antibody at (A) 0.5 and (B) 1 µg/mL.



Immunohistochemistry of CAPN6 in human lung tissue with CAPN6 antibody at 2.5 µg/mL.

Immunofluorescence of CAPN6 in Human Lung cells with CAPN6 antibody at 20 µg/mL.



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