

**CAPNS1 Antibody (monoclonal) (M01)****Mouse monoclonal antibody raised against a partial recombinant CAPNS1.****Catalog # AT1391a****Specification**

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**CAPNS1 Antibody (monoclonal) (M01) - Product Information**

Application	IF, WB, IHC, E
Primary Accession	<a href="#">P04632</a>
Other Accession	<a href="#">BC000592</a>
Reactivity	Human, Rat
Host	mouse
Clonality	Monoclonal
Isotype	IgG1 Kappa
Calculated MW	28316

**CAPNS1 Antibody (monoclonal) (M01) - Additional Information****Gene ID** 826**Other Names**

Calpain small subunit 1, CSS1, Calcium-activated neutral proteinase small subunit, CANP small subunit, Calcium-dependent protease small subunit, CDPS, Calcium-dependent protease small subunit 1, Calpain regulatory subunit, CAPNS1, CAPN4, CAPNS

**Target/Specificity**

CAPNS1 (AAH00592, 172 a.a. ~ 260 a.a) partial recombinant protein with GST tag. MW of the GST tag alone is 26 KDa.

**Dilution**

WB~~1:500~1000

**Format**

Clear, colorless solution in phosphate buffered saline, pH 7.2 .

**Storage**

Store at -20°C or lower. Aliquot to avoid repeated freezing and thawing.

**Precautions**

CAPNS1 Antibody (monoclonal) (M01) is for research use only and not for use in diagnostic or therapeutic procedures.

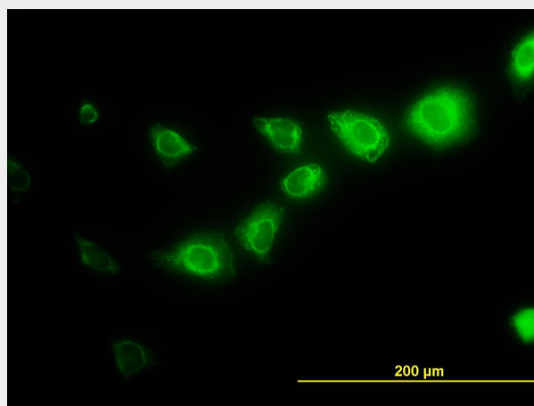
**CAPNS1 Antibody (monoclonal) (M01) - Protocols**

Provided below are standard protocols that you may find useful for product applications.

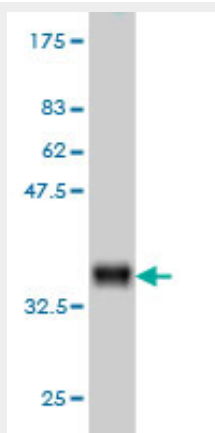
- [Western Blot](#)
- [Blocking Peptides](#)

- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

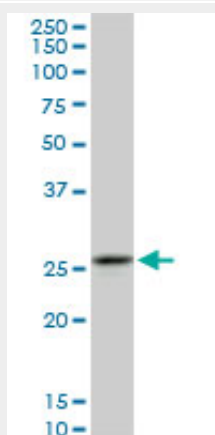
### CAPNS1 Antibody (monoclonal) (M01) - Images



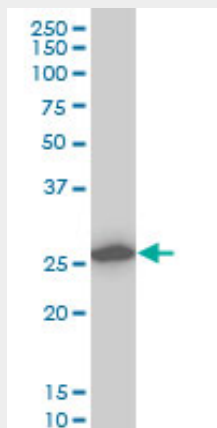
Immunofluorescence of monoclonal antibody to CAPNS1 on HeLa cell. [antibody concentration 20 ug/ml]



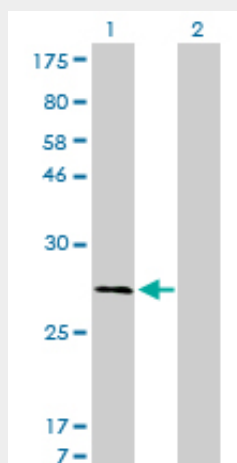
Antibody Reactive Against Recombinant Protein. Western Blot detection against Immunogen (35.42 KDa) .



CAPNS1 monoclonal antibody (M01), clone 3C4. Western Blot analysis of CAPNS1 expression in PC-12 (Cat # AT1391a)



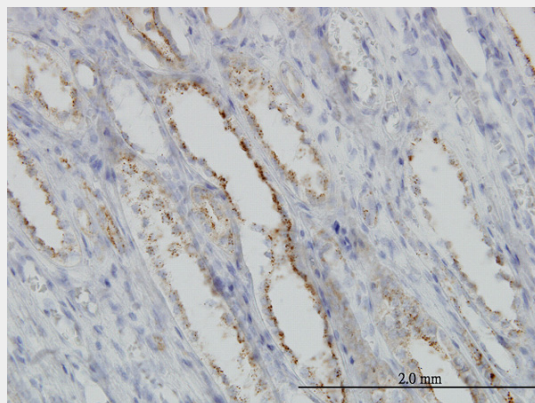
CAPNS1 monoclonal antibody (M01), clone 3C4 Western Blot analysis of CAPNS1 expression in A-431 (Cat # AT1391a)



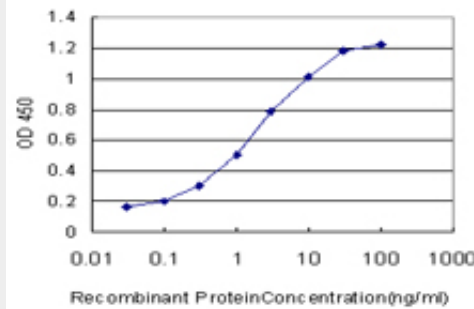
Western Blot analysis of CAPNS1 expression in transfected 293T cell line by CAPNS1 monoclonal antibody (M01), clone 3C4.

Lane 1: CAPNS1 transfected lysate(28.3 KDa).

Lane 2: Non-transfected lysate.



Immunoperoxidase of monoclonal antibody to CAPNS1 on formalin-fixed paraffin-embedded human kidney. [antibody concentration 3 ug/ml]



Detection limit for recombinant GST tagged CAPNS1 is approximately 0.1ng/ml as a capture antibody.

### **CAPNS1 Antibody (monoclonal) (M01) - Background**

Calpains are a ubiquitous, well-conserved family of calcium-dependent, cysteine proteases. Calpain families have been implicated in neurodegenerative processes, as their activation can be triggered by calcium influx and oxidative stress. Calpain I and II are heterodimeric with distinct large subunits associated with common small subunits, all of which are encoded by different genes. This gene encodes a small subunit common to both calpain I and II and is associated with myotonic dystrophy. Two transcript variants encoding the same protein have been identified for this gene.

### **CAPNS1 Antibody (monoclonal) (M01) - References**

1. Overexpression of a Minimal Domain of Calpastatin Suppresses IL-6 Production and Th17 Development via Reduced NF- $\kappa$ B and Increased STAT5 Signals. Iguchi-Hashimoto M, Usui T, Yoshifuji H, Shimizu M, Kobayashi S, Ito Y, Murakami K, Shiomi A, Yukawa N, Kawabata D, Nojima T, Ohmura K, Fujii T, Mimori T. PLoS One. 2011;6(10):e27020. Epub 2011 Oct 27.
2. The calpain inhibitor calpeptin prevents bleomycin-induced pulmonary fibrosis in mice. Tabata C, Tabata R, Nakano T. Clin Exp Immunol. 2010 Sep 15. doi: 10.1111/j.1365-2249.2010.04257.x. [Epub ahead of print]
3. Vitamin E and C supplementation does not ameliorate muscle dysfunction following anterior cruciate ligament surgery. Barker T, Leonard SW, Hansen J, Trawick RH, Ingram R, Burdett G, Lebold KM, Walker JA, Traber MG. Free Radic Biol Med. 2009 Sep 11. [Epub ahead of print]