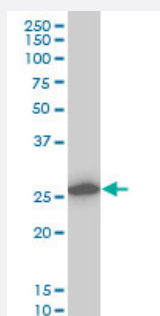


# CAPNS1 monoclonal antibody (M01), clone 3C4

Catalog # H00000826-M01

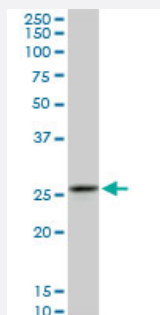
Size 100 ug

## Applications



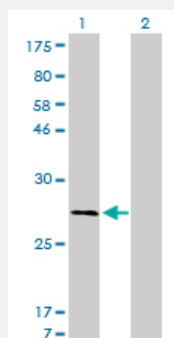
### Western Blot (Cell lysate)

CAPNS1 monoclonal antibody (M01), clone 3C4 Western Blot analysis of CAPNS1 expression in A-431 ( Cat # L015V1 ).



### Western Blot (Cell lysate)

CAPNS1 monoclonal antibody (M01), clone 3C4. Western Blot analysis of CAPNS1 expression in PC-12 ( Cat # L012V1 ).

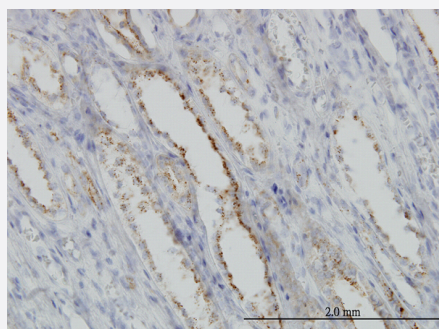


### Western Blot (Transfected lysate)

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.

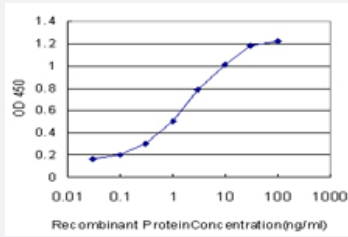


### Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections)

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

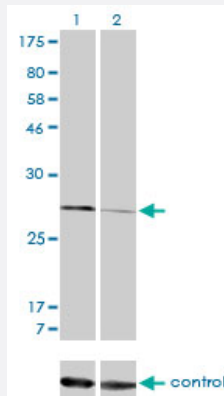
## Sandwich ELISA (Recombinant protein)

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



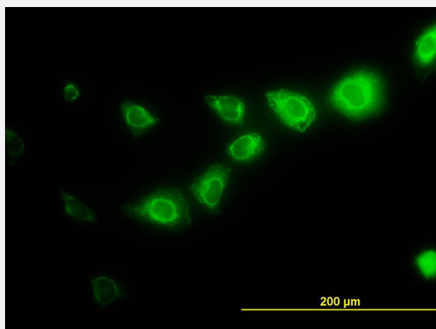
## RNAi Knockdown (Antibody validated)

Western blot analysis of CAPNS1 over-expressed 293 cell line, cotransfected with CAPNS1 Validated Chimera RNAi ( Cat # H00000826-R01V ) (Lane 2) or non-transfected control (Lane 1). Blot probed with CAPNS1 monoclonal antibody (M01), clone 3C4 (Cat # H00000826-M01 ). GAPDH ( 36.1 kDa ) used as specificity and loading control.

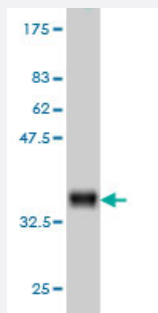


## Immunofluorescence

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



Western Blot detection against Immunogen (35.42 KDa) .



## Specification

### Product Description

Mouse monoclonal antibody raised against a partial recombinant CAPNS1.

### Immunogen

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

<b>Sequence</b>	KRWQAIYKQFDTRSGTICSSSELPGAFAEAGFHLNEHLYNMIIRRYSDSGNMDFDNFISCLVRLD AMFRAFKSLDKDGTGQIQVNIQE
<b>Host</b>	Mouse
<b>Reactivity</b>	Human, Rat
<b>Interspecies Antigen Sequence</b>	Mouse (92)
<b>Isotype</b>	IgG1 Kappa
<b>Quality Control Testing</b>	Antibody Reactive Against Recombinant Protein. Western Blot detection against Immunogen (35.42 KDa) .
<b>Storage Buffer</b>	In 1x PBS, pH 7.4
<b>Storage Instruction</b>	Store at -20°C or lower. Aliquot to avoid repeated freezing and thawing.

## Applications

- Western Blot (Cell lysate)

CAPNS1 monoclonal antibody (M01), clone 3C4 Western Blot analysis of CAPNS1 expression in A-431 ( Cat # L015V1 ).

[Protocol Download](#)

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[Protocol Download](#)

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- ELISA

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[Protocol Download](#)

- Immunofluorescence

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

## Gene Info — CAPNS1

Entrez GeneID [826](#)

GeneBank Accession# [BC000592](#)

Protein Accession# [AAH00592](#)

Gene Name CAPNS1

Gene Alias 30K, CALPAIN4, CANP, CANPS, CAPN4, CDPS

Gene Description calpain, small subunit 1

Omim ID [114170](#)

Gene Ontology [Hyperlink](#)

## Gene Summary

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. [provided by RefSeq]

## Other Designations

calcium-activated neutral proteinase|calcium-dependent protease, small subunit|calpain 4, small subunit (30K)|calpain, small polypeptide

## Publication Reference

- [Genetic Models of Calpain Deficiency and Ectopic Expression.](#)

Gao Y, Hall C, MacLeod J, Greer PA.

Methods in Molecular Biology (Clifton, N.J.) 2019 Jan; 1915:261.

Application: WB, Human, MDA-MB-231 cells

- [FK506-binding protein 10 \(FKBP10\) regulates lung fibroblast migration via collagen VI synthesis.](#)

Knüppel L, Heinzelmann K, Lindner M, Hatz R, Behr J, Eickelberg O, Staab-Weijnitz CA.

Respiratory Research 2018 Apr; 19(1):67.

Application: IF, PLA, WB, Human, Primary human lung fibroblasts

- [Overexpression of a Minimal Domain of Calpastatin Suppresses IL-6 Production and Th17 Development via Reduced NF-κB 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 Oct; 6(10):e27020.

Application: WB-Tr, Mouse, Naïve CD4+ T cells

- [The calpain inhibitor calpeptin prevents bleomycin-induced pulmonary fibrosis in mice.](#)

Tabata C, Tabata R, Nakano T.

Clinical and Experimental Immunology 2010 Dec; 162(3):560.

Application: IHC, Mouse, Mouse lungs

- [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 Radical Biology & Medicine 2009 Dec; 47(11):1611.

Application: IHC-P, Human, Human muscle biopsies

## Disease

- [Cardiovascular Diseases](#)
- [Diabetes Mellitus](#)
- [Edema](#)