

## Monoclonal anti-human CAPNS1 antibody (clone AT1D11)

Mouse IgG<sub>1</sub>, κ

Cat. No. IBATGA0367

**Immunogen:** Recombinant human CAPNS1 (84-268aa) purified from *E. coli*

**NCBI Accession No.:** NP\_001740

**Isotype:** Mouse IgG<sub>1</sub> heavy chain and κ light chain

**Clone:** Anti-human CAPNS1 mAb, clone AT1D11, is derived from hybridization of mouse F0 myeloma cells with spleen cells from BALB/c mice immunized with a recombinant human CAPNS1 protein.

**Description:** CAPNS1, also known as Calpain small subunit 1, 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. Two transcript variants encoding the same protein have been identified for this gene.

**Concentration:** 1 mg/ml

**Form:** Liquid. In Phosphate-Buffered Saline (pH 7.4) with 0.02% Sodium Azide, 10% Glycerol

**Storage:** Can be stored at +4C. For long term storage, aliquot and store at -20C. Avoid repeated freezing and thawing cycles.

**Usage:** The antibody has been tested by ELISA, Western blot analysis, ICC/IF and Flow cytometry to assure specificity and reactivity. Since application varies, however, each investigation should be titrated by the reagent to obtain optimal results.

**Application:** ELISA, WB, ICC/IF, Flow cytometry

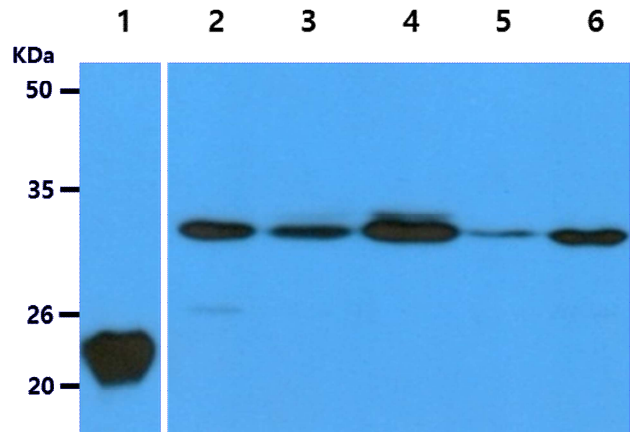
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# Product information

## Western blot analysis

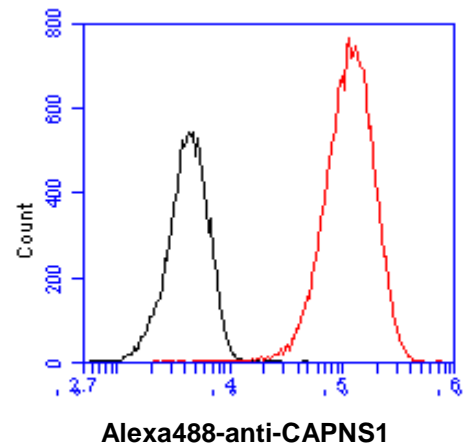
The recombinant human CAPNS1 (50ng) and Cell lysates (40ug) were resolved by SDS-PAGE, transferred to PVDF membrane and probed with anti-human CAPNS1 antibody (1:1000). Proteins were visualized using a goat anti-mouse secondary antibody conjugated to HRP and an ECL detection system.

- Lane 1.: CAPNS1 Recombinant protein
- Lane 2.: HeLa cell lysate
- Lane 3.: A431 cell lysate
- Lane 4.: 293T cell lysate
- Lane 5.: Balb/3T3 cell lysate
- Lane 6.: U87MG cell lysate



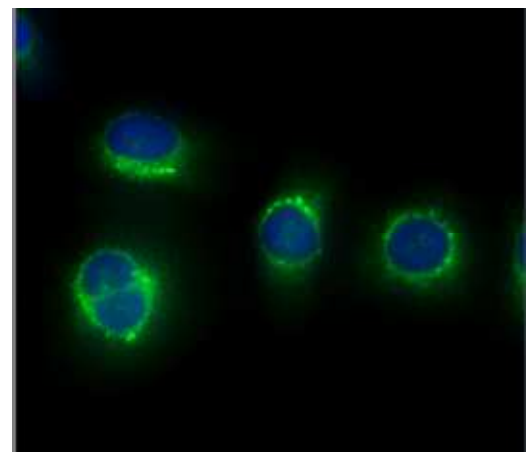
## Flow cytometry

Flow cytometry analysis of CAPNS1 in HeLa cell line, staining at 2-5ug for  $1 \times 10^6$  cells (red line). The secondary antibody used goat anti-mouse IgG Alexa fluor 488 conjugate. Isotype control antibody was mouse IgG (black line).



## ICC/IF analysis

ICC/IF analysis of CAPNS1 in HeLa cells line, stained with DAPI (Blue) for nucleus staining and monoclonal anti-human CAPNS1 antibody (1:100) with goat anti-mouse IgG-Alexa fluor 488 conjugate (Green).



## General references:

- Miyake S., *et al.* (1987) *Nucleic Acids Res.* **14(22)**: 8805-8817.
- Ohno S., *et al.* (1986) *Nucleic Acids Res.* **14(13)**: 5559.

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