

## ARG40277 anti-Calpain 1 antibody

Package: 50 µg  
Store at: -20°C

### Summary

|                     |                                                                                                                                                                                                                                         |
|---------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Product Description | Rabbit Polyclonal antibody recognizes Calpain 1                                                                                                                                                                                         |
| Tested Reactivity   | Hu, Ms, Rat                                                                                                                                                                                                                             |
| Predict Reactivity  | Hrs                                                                                                                                                                                                                                     |
| Tested Application  | ICC/IF, IHC-Fr, IHC-P, WB                                                                                                                                                                                                               |
| Host                | Rabbit                                                                                                                                                                                                                                  |
| Clonality           | Polyclonal                                                                                                                                                                                                                              |
| Isotype             | IgG                                                                                                                                                                                                                                     |
| Target Name         | Calpain 1                                                                                                                                                                                                                               |
| Species             | Human                                                                                                                                                                                                                                   |
| Immunogen           | Synthetic peptide corresponding to aa. 312-326 of Human Calpain 1. (EWNNVDPYERDQLRV)                                                                                                                                                    |
| Conjugation         | Un-conjugated                                                                                                                                                                                                                           |
| Alternate Names     | EC 3.4.22.52; CANP1; Calpain-1 large subunit; Calpain-1 catalytic subunit; Calpain mu-type; muCANP; Cell proliferation-inducing gene 30 protein; Micromolar-calpain; CANP 1; CANP; muCL; CANPL1; Calcium-activated neutral proteinase 1 |

### Application Instructions

| Application table | Application                                                                                                                                                                                | Dilution        |
|-------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------|
|                   | ICC/IF                                                                                                                                                                                     | 0.5 - 1 µg/ml   |
|                   | IHC-Fr                                                                                                                                                                                     | 1:200 - 1:1000  |
|                   | IHC-P                                                                                                                                                                                      | 0.5 - 1 µg/ml   |
|                   | WB                                                                                                                                                                                         | 0.1 - 0.5 µg/ml |
| Application Note  | IHC-P: Antigen Retrieval: By heat mediation.<br>* The dilutions indicate recommended starting dilutions and the optimal dilutions or concentrations should be determined by the scientist. |                 |
| Observed Size     | ~ 80 kDa                                                                                                                                                                                   |                 |

### Properties

|              |                                                                                                     |
|--------------|-----------------------------------------------------------------------------------------------------|
| Form         | Liquid                                                                                              |
| Purification | Affinity purification with immunogen.                                                               |
| Buffer       | 0.2% Na <sub>2</sub> HPO <sub>4</sub> , 0.9% NaCl, 0.05% Thimerosal, 0.05% Sodium azide and 5% BSA. |
| Preservative | 0.05% Thimerosal and 0.05% Sodium azide                                                             |
| Stabilizer   | 5% BSA                                                                                              |

|                     |                                                                                                                                                                                                                                                                                                                            |
|---------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Concentration       | 0.5 mg/ml                                                                                                                                                                                                                                                                                                                  |
| Storage instruction | For continuous use, store undiluted antibody at 2-8°C for up to a week. For long-term storage, aliquot and store at -20°C or below. Storage in frost free freezers is not recommended. Avoid repeated freeze/thaw cycles. Suggest spin the vial prior to opening. The antibody solution should be gently mixed before use. |
| Note                | For laboratory research only, not for drug, diagnostic or other use.                                                                                                                                                                                                                                                       |

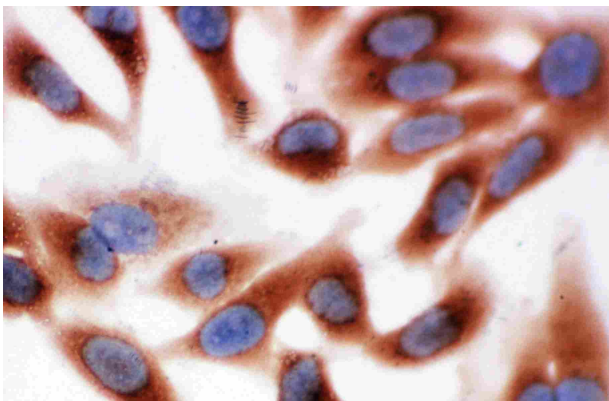
## Bioinformation

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|                       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
|-----------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Gene Symbol           | CAPN1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| Gene Full Name        | calpain 1, (mu/l) large subunit                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| Background            | The calpains, calcium-activated neutral proteases, are nonlysosomal, intracellular cysteine proteases. The mammalian calpains include ubiquitous, stomach-specific, and muscle-specific proteins. The ubiquitous enzymes consist of heterodimers with distinct large, catalytic subunits associated with a common small, regulatory subunit. This gene encodes the large subunit of the ubiquitous enzyme, calpain 1. Several transcript variants encoding two different isoforms have been found for this gene. [provided by RefSeq, Nov 2010] |
| Function              | Calcium-regulated non-lysosomal thiol-protease which catalyze limited proteolysis of substrates involved in cytoskeletal remodeling and signal transduction. [UniProt]                                                                                                                                                                                                                                                                                                                                                                          |
| Calculated Mw         | 82 kDa                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| PTM                   | Undergoes calcium-induced successive autoproteolytic cleavages that generate a membrane-bound 78 kDa active form and an intracellular 75 kDa active form. Calpastatin reduces with high efficiency the transition from 78 kDa to 75 kDa calpain forms. [UniProt]                                                                                                                                                                                                                                                                                |
| Cellular Localization | Cytoplasm. Cell membrane. Note=Translocates to the plasma membrane upon Ca(2+) binding. In granular keratinocytes and in lower corneocytes, colocalizes with FLG and FLG2 (PubMed:21531719). [UniProt]                                                                                                                                                                                                                                                                                                                                          |

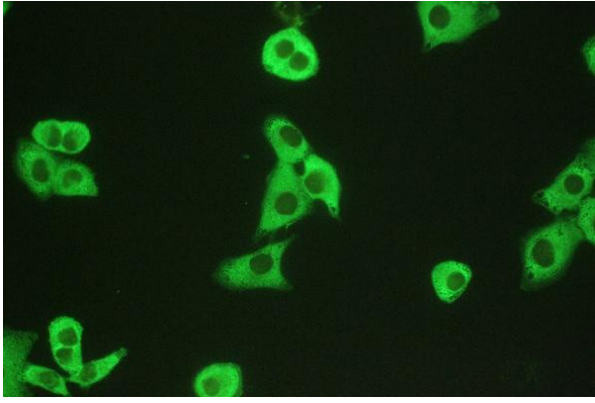
## Images

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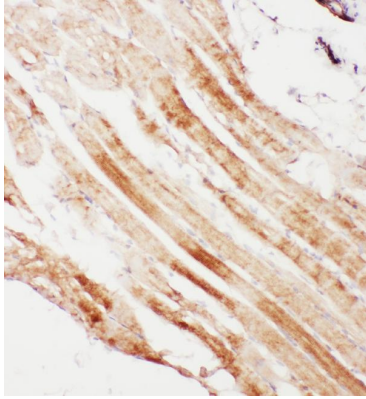
ARG40277 anti-Calpain 1 antibody ICC/IF image

Immunocytochemistry: HeLa cells stained with ARG40277 anti-Calpain 1 antibody.



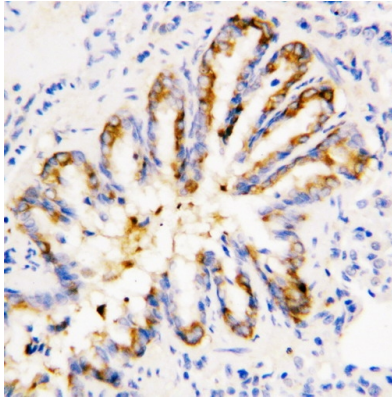
ARG40277 anti-Calpain 1 antibody ICC/IF image

Immunofluorescence: A549 cells were blocked with 10% goat serum and then stained with ARG40277 anti-Calpain 1 antibody (green) at 5  $\mu\text{g/ml}$  dilution, overnight at 4°C.



ARG40277 anti-Calpain 1 antibody IHC-Fr image

Immunohistochemistry: Frozen section of Rat cardiac muscle tissue. The tissue section was blocked with 10% goat serum. The tissue section was then stained with ARG40277 anti-Calpain 1 antibody at 1  $\mu\text{g/ml}$  dilution, overnight at 4°C.



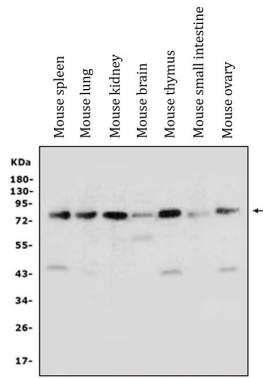
ARG40277 anti-Calpain 1 antibody IHC-P image

Immunohistochemistry: Paraffin-embedded Rat lung stained with ARG40277 anti-Calpain 1 antibody.



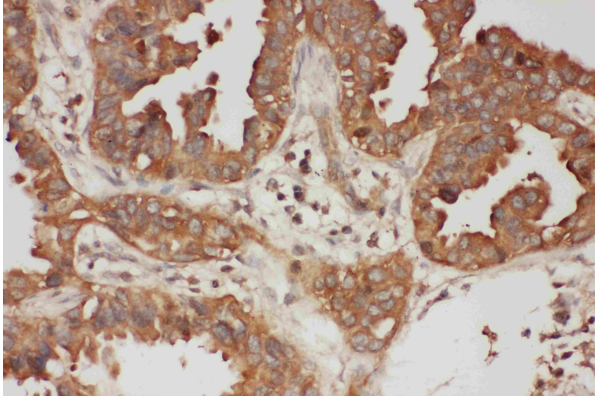
ARG40277 anti-Calpain 1 antibody WB image

Western blot: HT1080 and COLO320 cell lysates stained with ARG40277 anti-Calpain 1 antibody.



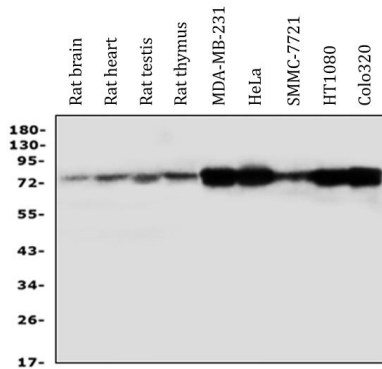
ARG40277 anti-Calpain 1 antibody WB image

Western blot: 50 µg of sample under reducing conditions. Mouse spleen, Mouse lung, Mouse kidney, Mouse brain, Mouse thymus, Mouse small intestine and Mouse ovary lysates stained with ARG40277 anti-Calpain 1 antibody at 0.5 µg/ml dilution, overnight at 4°C.



ARG40277 anti-Calpain 1 antibody IHC-P image

Immunohistochemistry: Paraffin-embedded Human intestinal cancer stained with ARG40277 anti-Calpain 1 antibody.



ARG40277 anti-Calpain 1 antibody WB image

Western blot: 50 µg of sample under reducing conditions. Rat brain, Rat heart, Rat testis, Rat thymus, MDA-MB-231, HeLa, SMMC-7721, HT1080 and Colo320 whole cell lysates stained with ARG40277 anti-Calpain 1 antibody at 0.5 µg/ml dilution, overnight at 4°C.