abcam

Product datasheet

Anti-Calpain 1 antibody ab28257

★★★★★ **1 Abreviews**   **11 References**   **2 Images**

Overview

Product name	Anti-Calpain 1 antibody
Description	Rabbit polyclonal to Calpain 1
Host species	Rabbit
Specificity	ab28257 recognizes the amino terminal end of the large subunit of Calpain 1. The antibody does not recognize amino-processed Calpain 1, and can be used to discriminate between latent and amino-processed forms. Also, it does not cross react with the other calpain family members (M Calpain, Calpain 94, ncl2, ncl3, etc.).
Tested applications	**Suitable for:** WB, ICC/IF
Species reactivity	**Reacts with:** Human
Immunogen	Synthetic peptide corresponding to Human Calpain 1 aa 1-30.
Positive control	Human condrosarcoma cell lysate.
General notes	The Life Science industry has been in the grips of a reproducibility crisis for a number of years. Abcam is leading the way in addressing this with our range of recombinant monoclonal antibodies and knockout edited cell lines for gold-standard validation. Please check that this product meets your needs before purchasing. If you have any questions, special requirements or concerns, please send us an inquiry and/or contact our Support team ahead of purchase. Recommended alternatives for this product can be found below, along with publications, customer reviews and Q&As

Properties

Form	Liquid
Storage instructions	Shipped at 4°C. Store at +4°C short term (1-2 weeks). Upon delivery aliquot. Store at -20°C long term.
Storage buffer	Preservative: 0.05% Sodium azide Constituents: PBS, 50% Glycerol
Purity	Immunogen affinity purified
Purification notes	The antibody has been peptide-affinity purified.
Clonality	Polyclonal
Isotype	IgG

Applications

The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Application	Abreviews	Notes
WB	★★★★★ (1)	1/1000 - 1/5000. Detects a band of approximately 82 kDa (predicted molecular weight: 82 kDa). 1/1000, when using colorimetric substrates such as BCIP/NBT - 1/5000, when using chemiluminescent substrates. But note that when used against the reduced protein, ab28257 identifies bands at 80 kDa, 68 kDa, and a series of further cleaved forms. Dilution optimised using Chromogenic detection.
ICC/IF		Use a concentration of 1 - 5 µg/ml.

Target

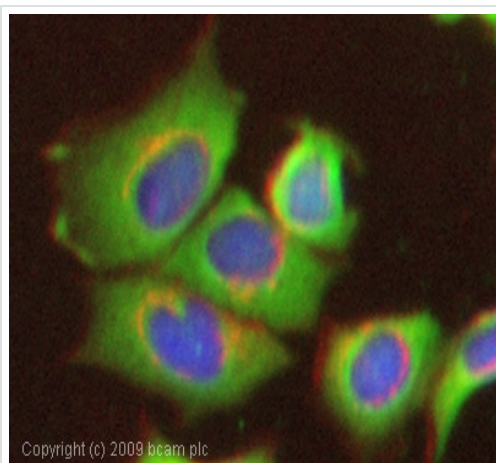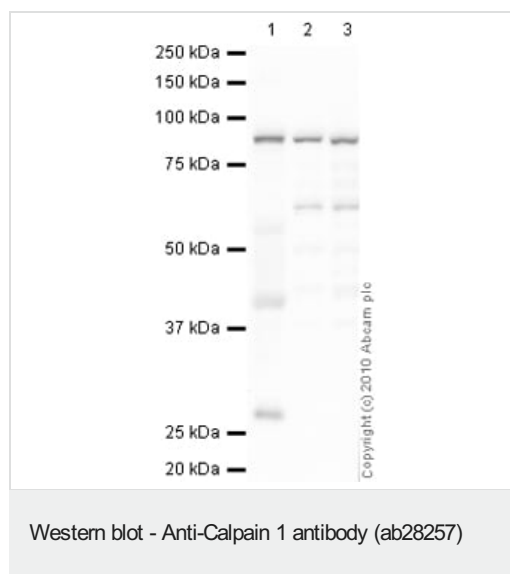|	
Function	Calcium-regulated non-lysosomal thiol-protease which catalyze limited proteolysis of substrates involved in cytoskeletal remodeling and signal transduction.
Tissue specificity	Ubiquitous.
Sequence similarities	Belongs to the peptidase C2 family. Contains 1 calpain catalytic domain. Contains 4 EF-hand domains.
Cellular localization	Cytoplasm. Cell membrane. Translocates to the plasma membrane upon Ca(2+) binding.

Images

ICC/IF image of ab28257 stained MCF7 cells. The cells were 100% methanol fixed (5 min) and then incubated in 1%BSA / 10% normal goat serum / 0.3M glycine in 0.1% PBS-Tween for 1h to permeabilise the cells and block non-specific protein-protein interactions. The cells were then incubated with the antibody (ab28257, 1µg/ml) overnight at +4°C. The secondary antibody (green) was Alexa Fluor® 488 goat anti-rabbit IgG (H+L) used at a 1/1000 dilution for 1h. Alexa Fluor® 594 WGA was used to label plasma membranes (red) at a 1/200 dilution for 1h. DAPI was used to stain the cell nuclei (blue) at a concentration of 1.43µM.

Immunocytochemistry/ Immunofluorescence - Anti-Calpain 1 antibody (ab28257)

Western blot - Anti-Calpain 1 antibody (ab28257)

All lanes : Anti-Calpain 1 antibody (ab28257) at 1 µg/ml

Lane 1 : Human liver tissue lysate - total protein (**ab29889**)

Lane 2 : HeLa (Human epithelial carcinoma cell line) Whole Cell Lysate

Lane 3 : U2OS (Human osteosarcoma cell line) Whole Cell Lysate

Lysates/proteins at 10 µg per lane.

Secondary

All lanes : Goat Anti-Rabbit IgG H&L (HRP) preadsorbed (**ab97080**) at 1/5000 dilution

Developed using the ECL technique.

Performed under reducing conditions.

Predicted band size: 82 kDa

Observed band size: 82 kDa

Additional bands at: 27 kDa, 42 kDa, 65 kDa. We are unsure as to the identity of these extra bands.

Exposure time: 30 seconds

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