

## Product datasheet

### Anti-Calpain 2 antibody [EPR2562Y] ab75994

KO VALIDATED

Recombinant

RabMAb

[2 References](#) [5 Images](#)

#### Overview

<b>Product name</b>	Anti-Calpain 2 antibody [EPR2562Y]
<b>Description</b>	Rabbit monoclonal [EPR2562Y] to Calpain 2
<b>Host species</b>	Rabbit
<b>Tested applications</b>	<b>Suitable for:</b> Flow Cyt (Intra), WB <b>Unsuitable for:</b> ICC/IF or IHC-P
<b>Species reactivity</b>	<b>Reacts with:</b> Human
<b>Immunogen</b>	Synthetic peptide within Human Calpain 2 aa 150-250. The exact sequence is proprietary.
<b>Positive control</b>	WB: HEK-293T, A431 and LNCaP cell lysates; HeLa cytoplasmic or membrane lysate. Flow Cyt (intra): Permeabilized HeLa cells.
<b>General notes</b>	<p>This product is a recombinant monoclonal antibody, which offers several advantages including:</p> <ul style="list-style-type: none"> <li>- High batch-to-batch consistency and reproducibility</li> <li>- Improved sensitivity and specificity</li> <li>- Long-term security of supply</li> <li>- Animal-free production</li> </ul> <p>For more information <a href="#">see here</a>.</p> <p>Our RabMAb<sup>®</sup> technology is a patented hybridoma-based technology for making rabbit monoclonal antibodies. For details on our patents, please refer to <a href="#">RabMAb<sup>®</sup> patents</a>.</p> <p>Mouse, Rat: We have preliminary internal testing data to indicate this antibody may not react with these species. Please contact us for more information.</p>

#### Properties

<b>Form</b>	Liquid
<b>Storage instructions</b>	Shipped at 4°C. Store at -20°C. Stable for 12 months at -20°C.
<b>Storage buffer</b>	pH: 7.20 Preservative: 0.01% Sodium azide Constituents: 9% PBS, 40% Glycerol (glycerin, glycerine), 0.05% BSA, 50% Tissue culture supernatant
<b>Purity</b>	Protein A purified

<b>Clonality</b>	Monoclonal
<b>Clone number</b>	EPR2562Y
<b>Isotype</b>	IgG

## Applications

**The Abpromise guarantee** Our **Abpromise guarantee** covers the use of ab75994 in the following tested applications. The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

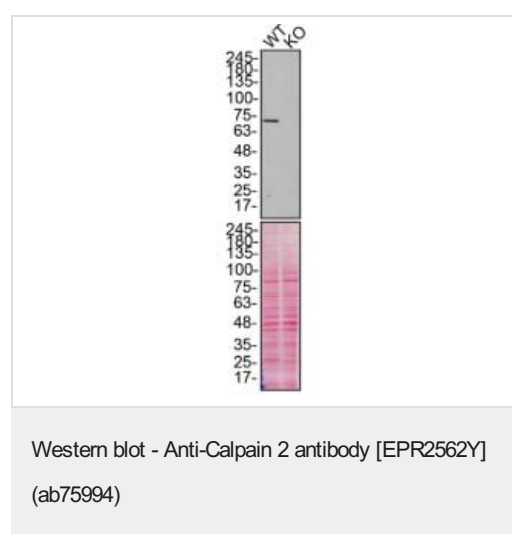
Application	Abreviews	Notes
<b>Flow Cyt (Intra)</b>		1/60. <b>ab172730</b> - Rabbit monoclonal IgG, is suitable for use as an isotype control with this antibody.
<b>WB</b>		1/2000. Detects a band of approximately 80 kDa.

**Application notes** Is unsuitable for ICC/IF or IHC-P.

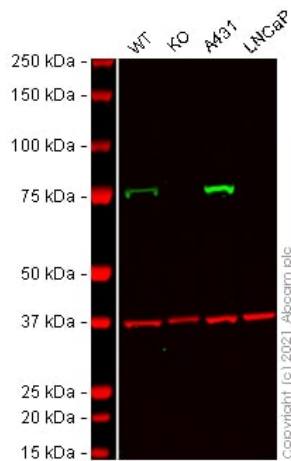
## Target

<b>Function</b>	Calcium-regulated non-lysosomal thiol-protease which catalyze limited proteolysis of substrates involved in cytoskeletal remodeling and signal transduction.
<b>Tissue specificity</b>	Ubiquitous.
<b>Sequence similarities</b>	Belongs to the peptidase C2 family. Contains 1 calpain catalytic domain. Contains 3 EF-hand domains.
<b>Cellular localization</b>	Cytoplasm. Cell membrane. Translocates to the plasma membrane upon Ca(2+) binding.

## Images



ab75994 was shown to react with CAPN2 in wild-type MDA-MB-231 (wpdx GFP) cells in Western blot with loss of signal observed in a CAPN2 knockout cell line. Wild-type MDA-MB-231 (wpdx GFP) and CAPN2 knockout cell lysates were subjected to SDS-PAGE. Membranes were blocked in 5% milk in TBST for 1 hr before incubation with ab75994 overnight at 4 °C at a 1/2000 dilution. Blots were incubated with goat anti-rabbit HRP secondary antibodies at 0.2 µg/ml before imaging. These data were provided by YCharOS Inc., an open science company with the mission of characterizing commercially available antibody reagents for all human proteins. Abcam and YCharOS are working together to help address the reproducibility crisis by enabling the life science community to better evaluate commercially available antibodies.



Western blot - Anti-Calpain 2 antibody [EPR2562Y]  
(ab75994)

**All lanes** : Anti-Calpain 2 antibody [EPR2562Y] (ab75994) at 1/2000 dilution

**Lane 1** : Wild-type HEK-293T cell lysate at 40 µg

**Lane 2** : CAPN2 knockout HEK-293T cell lysate at 40 µg

**Lane 3** : A431 cell lysate at 20 µg

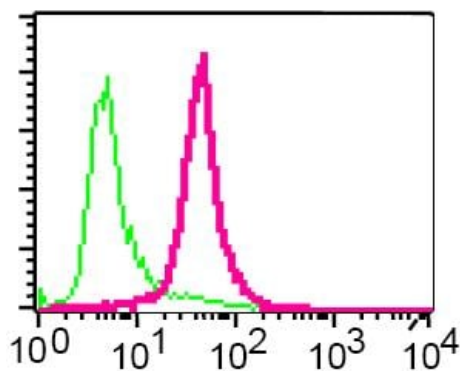
**Lane 4** : LNCaP cell lysate at 20 µg

Performed under reducing conditions.

**Observed band size:** 75 kDa

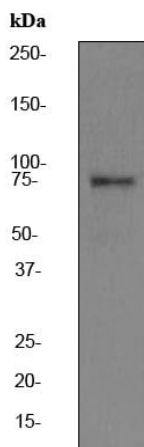
**Lanes 1 - 4:** Merged signal (red and green). Green - ab75994 observed at 75 kDa. Red - loading control **ab8245** (Mouse anti-GAPDH antibody [6C5]) observed at 37 kDa.

ab75994 was shown to react with Calpain 2 in wild-type HEK-293T cells in Western blot with loss of signal observed in CAPN2 knockout cell line **ab266628** (CAPN2 knockout cell lysate **ab257379**). Wild-type HEK-293T and CAPN2 knockout cell lysates were subjected to SDS-PAGE. Membranes were blocked in 3 % milk in TBS-T (0.1 % Tween®) before incubation with ab75994 and **ab8245** (Mouse anti-GAPDH antibody [6C5]) overnight at 4°C at a 1 in 2000 dilution and a 1 in 20000 dilution respectively. Blots were incubated with Goat anti-Rabbit IgG H&L (IRDye® 800CW) preabsorbed (**ab216773**) and Goat anti-Mouse IgG H&L (IRDye® 680RD) preabsorbed (**ab216776**) secondary antibodies at 1 in 20000 dilution for 1 h at room temperature before imaging.



Flow Cytometry (Intracellular) - Anti-Calpain 2  
antibody [EPR2562Y] (ab75994)

Intracellular flow cytometric analysis of permeabilized HeLa cells using ab75994 (red) or a rabbit IgG (negative) (green).



Anti-Calpain 2 antibody [EPR2562Y] (ab75994) at 1/500 dilution +  
HeLa cell lysate at 10 µg

### Secondary

HRP labelled goat anti-rabbit at 1/2000 dilution

**Observed band size:** 75 kDa

Western blot - Anti-Calpain 2 antibody [EPR2562Y]  
(ab75994)

### Why choose a recombinant antibody?



**Research with confidence**  
Consistent and reproducible results



**Long-term and scalable supply**  
Recombinant technology



**Success from the first experiment**  
Confirmed specificity



**Ethical standards compliant**  
Animal-free production

Anti-Calpain 2 antibody [EPR2562Y] (ab75994)

**Please note:** All products are "FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC PROCEDURES"

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