

## Product datasheet

### Anti-Calpain 2 antibody [EPR5977] ab126600

KO VALIDATED

Recombinant

RabMAb

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#### Overview

Product name	Anti-Calpain 2 antibody [EPR5977]
Description	Rabbit monoclonal [EPR5977] to Calpain 2
Host species	Rabbit
Tested applications	<b>Suitable for:</b> WB
Species reactivity	<b>Reacts with:</b> Mouse, Rat, Human
Immunogen	Synthetic peptide within Human Calpain 2 aa 650-750. The exact sequence is proprietary.
Positive control	WB: PC3, HeLa, A431, LNCaP and 293T cell lysates.
General notes	<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>

#### 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. Avoid freeze / thaw cycle. Stable for 12 months at -20°C.
Storage buffer	<p>pH: 7.20</p> <p>Preservative: 0.01% Sodium azide</p> <p>Constituents: 59% PBS, 40% Glycerol (glycerin, glycerine), 0.5% BSA</p>
Purity	Protein A purified
Clonality	Monoclonal
Clone number	EPR5977
Isotype	IgG

## Applications

### The Abpromise guarantee

Our **Abpromise guarantee** covers the use of ab126600 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
WB		1/1000 - 1/10000. Detects a band of approximately 80 kDa (predicted molecular weight: 80 kDa).

## Target

### Function

Calcium-regulated non-lysosomal thiol-protease which catalyze limited proteolysis of substrates involved in cytoskeletal remodeling and signal transduction.

### Tissue specificity

Ubiquitous.

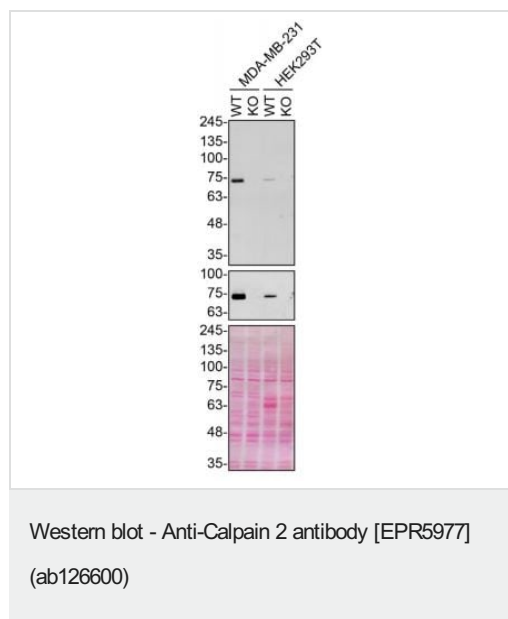
### Sequence similarities

Belongs to the peptidase C2 family.  
Contains 1 calpain catalytic domain.  
Contains 3 EF-hand domains.

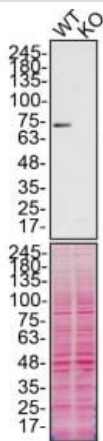
### Cellular localization

Cytoplasm. Cell membrane. Translocates to the plasma membrane upon Ca(2+) binding.

## Images

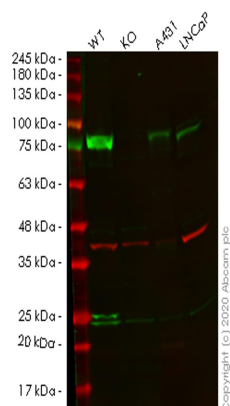


ab126600 was shown to react with CAPN2 in wild-type MDA-MB-231 (wp1d GFP) and HEK293T cells in Western blot with loss of signal observed in a CAPN2 knockout cell lines. Wild-type MDA-MB-231 (wp1d GFP) and HEK293T **ab255449** (CAPN2 knockout cell lysate **ab257379**) and CAPN2 knockout cell lysates were subjected to SDS-PAGE. Membranes were blocked in 5% milk in TBST for 1 hr before incubation with ab126600 overnight at 4 °C at a 1/5000 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 [EPR5977]  
(ab126600)

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Western blot - Anti-Calpain 2 antibody [EPR5977]  
(ab126600)

**All lanes :** Anti-Calpain 2 antibody [EPR5977] (ab126600) at 1/1000 dilution

**Lane 1 :** Wild-type HEK293T cell lysate

**Lane 2 :** CAPN2 knockout HEK293T cell lysate

**Lane 3 :** A431 cell lysate

**Lane 4 :** LNCaP cell lysate

Lysates/proteins at 20 µg per lane.

### Secondary

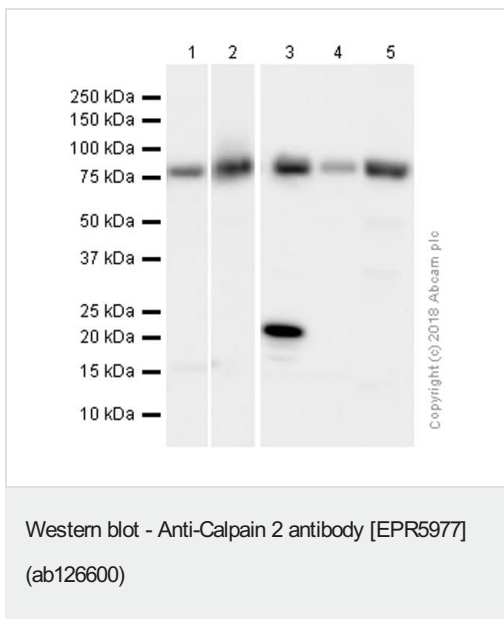
**All lanes :** Goat anti-Rabbit IgG H&L (IRDye® 800CW) preadsorbed ([ab216773](#)) at 1/10000 dilution

**Predicted band size:** 80 kDa

**Observed band size:** 80 kDa

**Lanes 1-4:** Merged signal (red and green). Green - ab126600 observed at 80 kDa. Red - loading control [ab8245](#) observed at 36 kDa.

ab126600 Anti-Calpain 2 antibody [EPR5977] was shown to specifically react with Calpain 2 in wild-type HEK293T cells. Loss of signal was observed when knockout cell line [ab266628](#) (knockout cell lysate [ab257379](#)) was used. Wild-type and Calpain 2 knockout samples were subjected to SDS-PAGE. ab126600 and Anti-GAPDH antibody [6C5] - Loading Control ([ab8245](#)) were incubated at room temperature for 2.5 hours at 1 in 1000 dilution and 1 in 20000 dilution respectively. Blots were developed with Goat anti-Rabbit IgG H&L (IRDye® 800CW) preadsorbed ([ab216773](#)) and Goat anti-Mouse IgG H&L (IRDye® 680RD) preadsorbed ([ab216776](#)) secondary antibodies at 1 in 20000 dilution for 1 hour at room temperature before imaging.



**All lanes :** Anti-Calpain 2 antibody [EPR5977] (ab126600) at 1/1000 dilution (Purified)

**Lane 1 :** Rat brain lysates

**Lane 2 :** Rat kidney lysates

**Lane 3 :** PC-3 (Human prostate adenocarcinoma epithelial cell) whole cell lysates

**Lane 4 :** Mouse brain lysates

**Lane 5 :** Mouse kidney lysates

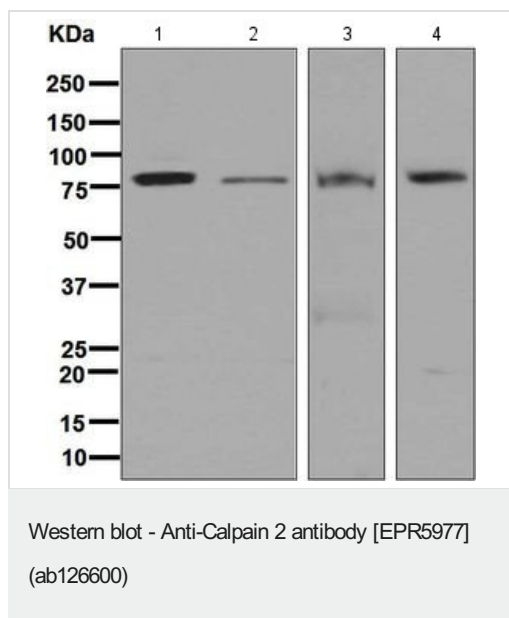
Lysates/proteins at 20 µg per lane.

### Secondary

**All lanes :** Goat Anti-Rabbit IgG H&L (HRP) ([ab97051](#)) at 1/20000 dilution (Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated)

**Predicted band size:** 80 kDa

**Observed band size:** 80 kDa



**All lanes :** Anti-Calpain 2 antibody [EPR5977] (ab126600) at 1/1000 dilution (unpurified)

**Lane 1 :** PC3 cell lysate

**Lane 2 :** HeLa cell lysate

**Lane 3 :** A431 cell lysate

**Lane 4 :** 293T cell lysate

Lysates/proteins at 10 µg per lane.

#### Secondary

**All lanes :** Goat anti-Rabbit HRP at 1/2000 dilution

**Predicted band size:** 80 kDa

**Observed band size:** 80 kDa

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 [EPR5977] (ab126600)

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

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- We provide support in Chinese, English, French, German, Japanese and Spanish
- Extensive multi-media technical resources to help you
- We investigate all quality concerns to ensure our products perform to the highest standards

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