

## Product datasheet

### Anti-Calpain 2 antibody ab39165

★★★★★ [8 Abreviews](#) [50 References](#) [3 Images](#)

#### Overview

<b>Product name</b>	Anti-Calpain 2 antibody
<b>Description</b>	Rabbit polyclonal to Calpain 2
<b>Host species</b>	Rabbit
<b>Specificity</b>	ab39165 binds to reduced and non-reduced calpain 2, but does not cross react with the other calpain family members (m calpain, calpain 94, ncl 2, ncl 3, etc.). It reacts with latent and active (amino-truncated) Calpain 2.
<b>Tested applications</b>	<b>Suitable for:</b> WB, IHC-P, ICC/IF
<b>Species reactivity</b>	<b>Reacts with:</b> Mouse, Rat, Human
<b>Immunogen</b>	Synthetic peptide based on the amino terminal end of domain-III in the large subunit of Rat Calpain 2. (Peptide available as <a href="#">ab41302</a> .)
<b>General notes</b>	<p>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.</p> <p>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&amp;As</p>

#### Properties

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

#### Applications

## The Abpromise guarantee

Our **Abpromise guarantee** covers the use of ab39165 in the following tested applications.

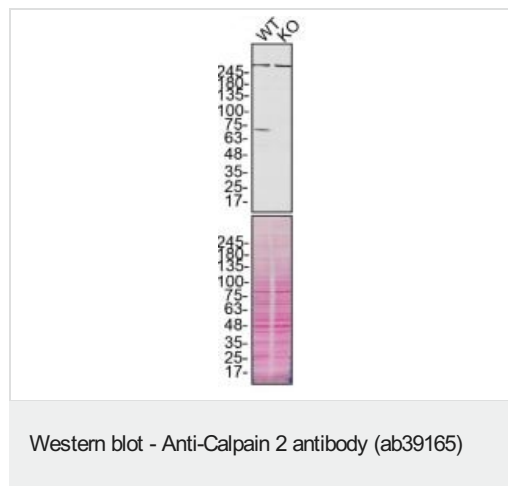
The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Application	Abreviews	Notes
WB	★★★★★ (6)	1/1000 - 1/5000. Detects a band of approximately 76 kDa (predicted molecular weight: 80 kDa). Dilution optimised using Chromogenic detection.
IHC-P		Use a concentration of 4 µg/ml. Perform heat mediated antigen retrieval before commencing with IHC staining protocol.
ICC/IF	★★★★★ (1)	Use at an assay dependent concentration. PubMed: 17192410

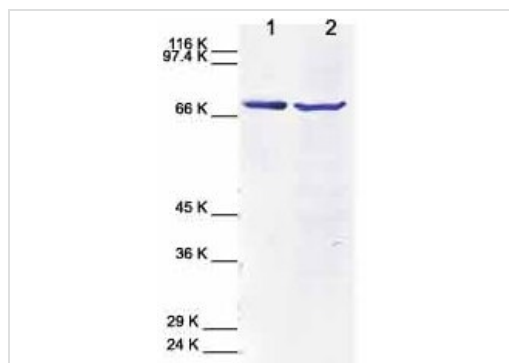
## Target

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



ab39165 was shown to react with CAPN2 in wild-type MDA-MB-231 (wp4d GFP) cells in Western blot with loss of signal observed in a CAPN2 knockout cell line. Wild-type MDA-MB-231 (wp4d 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 ab39165 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 (ab39165)

**All lanes** : Anti-Calpain 2 antibody (ab39165) at 1/1000 dilution

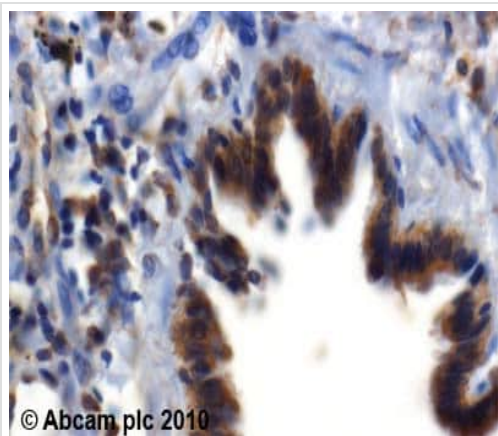
**Lane 1** : Calpain 2 control

**Lane 2** : Cell lysates from human chondrosarcoma (treated with IL 1 alpha) at 10 µg

Performed under reducing conditions.

**Predicted band size:** 80 kDa

**Observed band size:** 76 kDa



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Calpain 2 antibody (ab39165)

ab39165 (4µg/ml) staining CALPAIN2 in human lung using an automated system (DAKO Autostainer Plus). Using this protocol there is cytoplasmic staining.

Sections were rehydrated and antigen retrieved with the Dako 3 in 1 AR buffer EDTA pH 9.0 in a DAKO PT Link. Slides were peroxidase blocked in 3% H<sub>2</sub>O<sub>2</sub> in methanol for 10 mins. They were then blocked with Dako Protein block for 10 minutes (containing casein 0.25% in PBS) then incubated with primary antibody for 20 min and detected with Dako Envision Flex amplification kit for 30 minutes. Colorimetric detection was completed with Diaminobenzidine for 5 minutes. Slides were counterstained with Haematoxylin and coverslipped under DePeX. Please note that, for manual staining, optimization of primary antibody concentration and incubation time is recommended. Signal amplification may be required.

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

### Our Promise to you: Quality guaranteed and expert technical support

- Replacement or refund for products not performing as stated on the datasheet
- Valid for 12 months from date of delivery
- Response to your inquiry within 24 hours
- 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

If the product does not perform as described on this datasheet, we will offer a refund or replacement. For full details of the Abpromise, please visit <https://www.abcam.com/abpromise> or contact our technical team.

#### **Terms and conditions**

---

- Guarantee only valid for products bought direct from Abcam or one of our authorized distributors