

Product datasheet

Anti-Caspase-7 antibody [4D10B2] α b201959

KO **VALIDATED**

[2 References](#) [6 Images](#)

Overview

Product name	Anti-Caspase-7 antibody [4D10B2]
Description	Mouse monoclonal [4D10B2] to Caspase-7
Host species	Mouse
Tested applications	Suitable for: IHC-P, WB, Flow Cyt
Species reactivity	Reacts with: Rat, Human
Immunogen	<p>Recombinant fragment corresponding to Human Caspase-7 aa 29-198. (Purified from E.coli). Sequence:</p> <p>SSFVPSLFSK KKKKNVTMRSIKTTRDRVPTYQYNMNFELG KCIINNKNF DKVTGMGVRNGTDKDAEALFKCFRSLGFDVIVYNDSCA KMQDLLKKASE EDHTNAACFACILLSHGEENVYGKDGVTPIKDLTAHFRGD RCKTLLEKP KLFFIQACRGTELDGDIQAD</p> <p>Database link: P55210</p> <p style="text-align: right;"> Run BLAST with Run BLAST with </p>
Positive control	Human Caspase-7 (aa29-198) recombinant protein; Caspase-7 (aa29-198)-hlgGfC transfected HEK293 cell lysate; Jurkat, HEK293, MOLT4, MCF 7 and PC-12 cell lysates; MCF7 cells; Human cervical cancer tissue.
General notes	<p>Reproducibility is key to advancing scientific discovery and accelerating scientists' next breakthrough.</p> <p>Abcam is leading the way with our range of recombinant antibodies, knockout-validated antibodies and knockout cell lines, all of which support improved reproducibility.</p> <p>We are also planning to innovate the way in which we present recommended applications and species on our product datasheets, so that only applications & species that have been tested in our own labs, our suppliers or by selected trusted collaborators are covered by our Abpromise™ guarantee.</p> <p>In preparation for this, we have started to update the applications & species that this product is Abpromise guaranteed for.</p> <p>We are also updating the applications & species that this product has been “predicted to work with,” however this information is not covered by our Abpromise guarantee.</p>

Applications & species from publications and Abreviews that have not been tested in our own labs or in those of our suppliers are not covered by the Abpromise guarantee.

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, as well as 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. Avoid freeze / thaw cycle.
Storage buffer	Preservative: 0.05% Sodium azide Constituent: 99% PBS
Purity	Protein G purified
Purification notes	Purified from tissue culture supernatant.
Clonality	Monoclonal
Clone number	4D10B2
Isotype	IgG1

Applications

Our [Abpromise guarantee](#) covers the use of **ab201959** 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
IHC-P		1/200 - 1/1000.
WB		1/500 - 1/2000. Predicted molecular weight: 34 kDa.
Flow Cyt		1/200 - 1/400. ab170190 - Mouse monoclonal IgG1, is suitable for use as an isotype control with this antibody.

Target

Function	Involved in the activation cascade of caspases responsible for apoptosis execution. Cleaves and activates sterol regulatory element binding proteins (SREBPs). Proteolytically cleaves poly(ADP-ribose) polymerase (PARP) at a '216-Asp-Gly-217' bond. Overexpression promotes programmed cell death.
Tissue specificity	Highly expressed in lung, skeletal muscle, liver, kidney, spleen and heart, and moderately in testis. No expression in the brain.
Sequence similarities	Belongs to the peptidase C14A family.

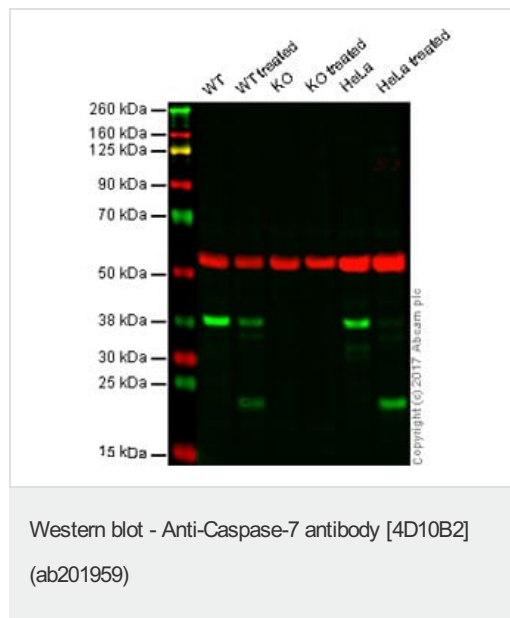
Post-translational modifications

Cleavages by granzyme B or caspase-10 generate the two active subunits. Propeptide domains can also be cleaved efficiently by caspase-3. Active heterodimers between the small subunit of caspase-7 and the large subunit of caspase-3, and vice versa, also occur.

Cellular localization

Cytoplasm.

Images



Lane 1: Wild type HAP1 whole cell lysate (20 µg)

Lane 2: HAP1 + Staurosporin knockout HAP1 whole cell lysate (20 µg)

Lane 3: CASP7 whole cell lysate (20 µg)

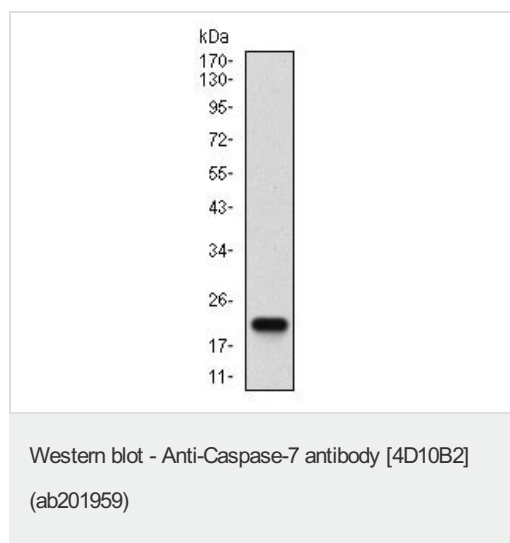
Lane 4: CASP7 + Staurosporin whole cell lysate (20 µg)

Lane 5: HeLa whole cell lysate (20 µg)

Lane 6: HeLa + Staurosporin whole cell lysate (20 µg)

Lanes 1 - 6: Merged signal (red and green). Green - ab201959 observed at 38,20 kDa. Red - loading control, ab176560, observed at 50 kDa.

ab201959 was shown to specifically react with HAP1 + Staurosporin when HAP1 + Staurosporin knockout samples were used. Wild-type and HAP1 + Staurosporin knockout samples were subjected to SDS-PAGE. Ab201959 and ab176560 (Rabbit anti alpha Tubulin loading control) were incubated overnight at 4°C at 1000 dilution and 1/10000 dilution respectively. Blots were developed 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 1/20000 dilution for 1 hour at room temperature before imaging.



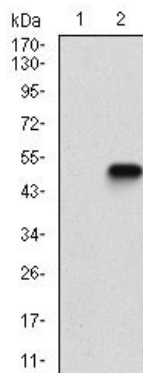
Anti-Caspase-7 antibody [4D10B2] (ab201959) at 1/500 dilution + Human Caspase-7 (aa29-198) recombinant protein

Predicted band size: 34 kDa

Observed band size: 22 kDa

[why is the actual band size different from the predicted?](#)

Expected MWt is 22.5 kDa.



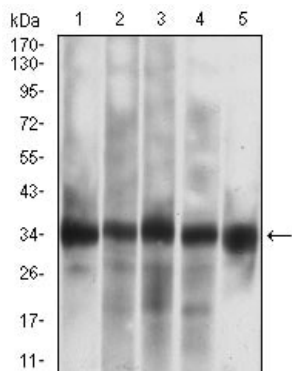
Western blot - Anti-Caspase-7 antibody [4D10B2] (ab201959)

All lanes : Anti-Caspase-7 antibody [4D10B2] (ab201959) at 1/500 dilution

Lane 1 : HEK293 cell lysate

Lane 2 : Caspase-7 (aa29-198)-hlgGFc transfected HEK293 cell lysate

Predicted band size: 34 kDa



Western blot - Anti-Caspase-7 antibody [4D10B2] (ab201959)

All lanes : Anti-Caspase-7 antibody [4D10B2] (ab201959) at 1/500 dilution

Lane 1 : Jurkat cell lysate

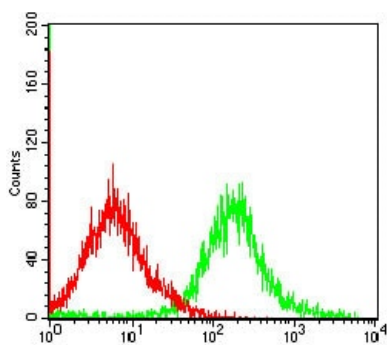
Lane 2 : HEK293 cell lysate

Lane 3 : MOLT4 cell lysate

Lane 4 : MCF7 cell lysate

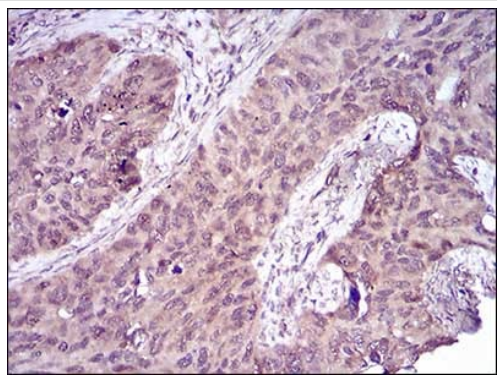
Lane 5 : PC12 cell lysate

Predicted band size: 34 kDa



Flow Cytometry - Anti-Caspase-7 antibody [4D10B2] (ab201959)

Flow cytometric analysis of MCF7 cells labeling Caspase -7 with ab201959 at 1/200 dilution (green) compared to a negative control (red).



Immunohistochemical analysis of paraffin-embedded Human cervical cancer tissue labeling Caspase-7 with ab201959 at 1/200 dilution.

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Caspase-7 antibody [4D10B2] (ab201959)

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