

Product datasheet

Anti-Cleaved PARP1 antibody [SP276] ab225715


KO VALIDATED

Recombinant

RabMAb

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

Overview

Product name	Anti-Cleaved PARP1 antibody [SP276]
Description	Rabbit monoclonal [SP276] to Cleaved PARP1
Host species	Rabbit
Tested applications	Suitable for: IHC-P, WB
Species reactivity	Reacts with: Mouse, Human Predicted to work with: Rat 
Immunogen	Synthetic peptide. This information is proprietary to Abcam and/or its suppliers.
Positive control	IHC-P: Human tonsil and bladder transitional cell carcinoma tissues. WB: NIH/3T3 cell lysate treated with staurosporine.
General notes	This product is FOR RESEARCH USE ONLY. For commercial use, please contact partnerships@abcam.com.

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	pH: 7.60 Preservative: 0.1% Sodium azide Constituents: PBS, 1% BSA
Purity	Protein A/G purified
Purification notes	Purified from TCS by Protein A/G.
Clonality	Monoclonal
Clone number	SP276
Isotype	IgG

Applications

The Abpromise guarantee

Our **Abpromise guarantee** covers the use of ab225715 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		1/100. Perform heat mediated antigen retrieval with citrate buffer pH 6 before commencing with IHC staining protocol. Primary incubation for 10 minutes at room temperature.
WB		1/100. Predicted molecular weight: 113 kDa. Primary incubation for 1 hour at room temperature.

Target

Function

Involved in the base excision repair (BER) pathway, by catalyzing the poly(ADP-ribosyl)ation of a limited number of acceptor proteins involved in chromatin architecture and in DNA metabolism. This modification follows DNA damages and appears as an obligatory step in a detection/signaling pathway leading to the reparation of DNA strand breaks. Mediates the poly(ADP-ribosyl)ation of APLF and CHFR. Positively regulates the transcription of MTUS1 and negatively regulates the transcription of MTUS2/TIP150. With EEF1A1 and TXK, forms a complex that acts as a T-helper 1 (Th1) cell-specific transcription factor and binds the promoter of IFN-gamma to directly regulate its transcription, and is thus involved importantly in Th1 cytokine production. Required for PARP9 and DTX3L recruitment to DNA damage sites. PARP1-dependent PARP9-DTX3L-mediated ubiquitination promotes the rapid and specific recruitment of 53BP1/TP53BP1, UIMC1/RAP80, and BRCA1 to DNA damage sites.

Sequence similarities

Contains 1 BRCT domain.
Contains 1 PARP alpha-helical domain.
Contains 1 PARP catalytic domain.
Contains 2 PARP-type zinc fingers.

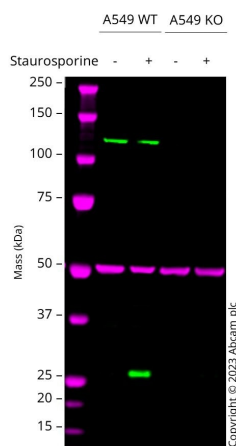
Post-translational modifications

Phosphorylated by PRKDC and TXK.
Poly-ADP-ribosylated by PARP2. Poly-ADP-ribosylation mediates the recruitment of CHD1L to DNA damage sites.
S-nitrosylated, leading to inhibit transcription regulation activity.

Cellular localization

Nucleus. Nucleus, nucleolus. Localizes at sites of DNA damage.

Images



Western blot - Anti-Cleaved PARP1 antibody [SP276] (ab225715)

All lanes : Anti-Cleaved PARP1 antibody [SP276] (ab225715) at 1/100 dilution

Lane 1 : Wild-type A549 control staurosporine (0 uM, 72 h) cell lysate

Lane 2 : Wild-type A549 treated staurosporine (3 uM, 24 h) cell lysate

Lane 3 : PARP1 knockout A549 control staurosporine (0 uM, 72 h) cell lysate

Lane 4 : PARP1 knockout A549 treated staurosporine (3 uM, 24 h) cell lysate

Lysates/proteins at 20 µg per lane.

Developed using the ECL technique.

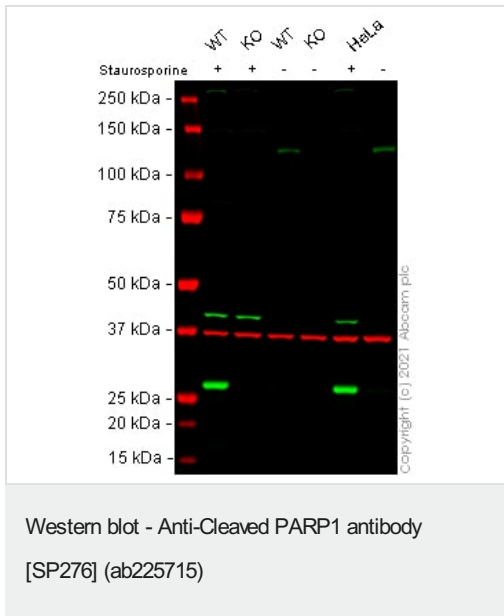
Performed under reducing conditions.

Predicted band size: 113 kDa

Observed band size: 125,27 kDa

Western blot: Anti-PARP1 antibody [SP276] (ab225715) staining at 1/100 dilution, shown in green; Mouse anti-Alpha Tubulin [DM1A] ([ab7291](#)) loading control staining at 1/20000 dilution, shown in magenta. In Western blot, ab225715 was shown to bind specifically to PARP1. A band was observed at 27/125 kDa in wild-type A549 cell lysates with no signal observed at this size in PARP1 knockout cell line. To generate this image, wild-type and PARP1 knockout A549 cell lysates were analysed. First, samples were run on an SDS-PAGE gel then transferred onto a nitrocellulose membrane. Membranes were blocked in fluorescent western blot (TBS-based) blocking solution before incubation with primary antibodies overnight at 4°C. Blots were washed four times in TBS-T, incubated

with secondary antibodies for 1 h at room temperature, washed again four times then imaged. Secondary antibodies used were Goat anti-Rabbit IgG H&L 800CW and Goat anti-Mouse IgG H&L 680RD at 1/20000 dilution.



All lanes : Anti-Cleaved PARP1 antibody [SP276] (ab225715) at 1/100 dilution

Lane 1 : Wild-type HAP1 Treated Staurosporine (1 uM, 3 h) cell lysate

Lane 2 : PARP1 knockout HAP1 Treated Staurosporine (1 uM, 3 h) cell lysate

Lane 3 : Wild-type HAP1 Control cell lysate

Lane 4 : PARP1 knockout HAP1 Control cell lysate

Lane 5 : HeLa Treated Staurosporine (1 uM, 3 h) cell lysate

Lane 6 : HeLa cell lysate

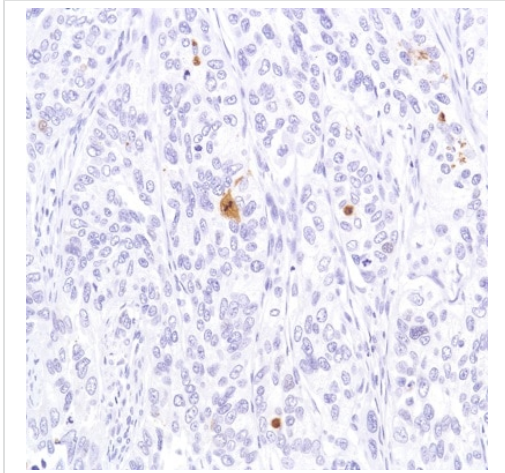
Lysates/proteins at 20 µg per lane.

Performed under reducing conditions.

Predicted band size: 113 kDa

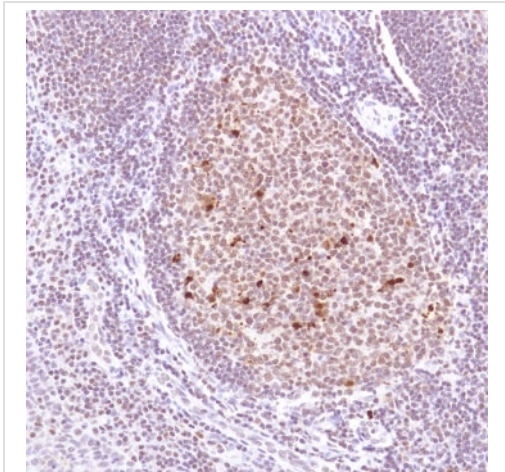
Observed band size: 130, 27 kDa

False colour image of Western blot: Anti-Cleaved PARP1 antibody [SP276] staining at 1/100 dilution, shown in green; Mouse anti-GAPDH antibody [6C5] ([ab8245](#)) loading control staining at 1/20000 dilution, shown in red. In Western blot, ab225715 was shown to bind specifically to Cleaved PARP1. A band was observed at 130 (full-length) and 27 (cleaved) kDa in treated wild-type HAP1 cell lysates with no signal observed at this size in PARP1 knockout cell line. To generate this image, wild-type and PARP1 knockout HAP1 cell lysates were analysed. First, samples were run on an SDS-PAGE gel then transferred onto a nitrocellulose membrane. Membranes were blocked in fluorescent western blot (TBS-based) blocking solution before incubation with primary antibodies overnight at 4 °C. Blots were washed four times in TBS-T, incubated with secondary antibodies for 1 h at room temperature, washed again four times then imaged. Secondary antibodies used were Goat anti-Rabbit IgG H&L (IRDye® 800CW) preabsorbed ([ab216773](#)) and Goat anti-Mouse IgG H&L (IRDye® 680RD) preabsorbed ([ab216776](#)) at 1/20000 dilution.



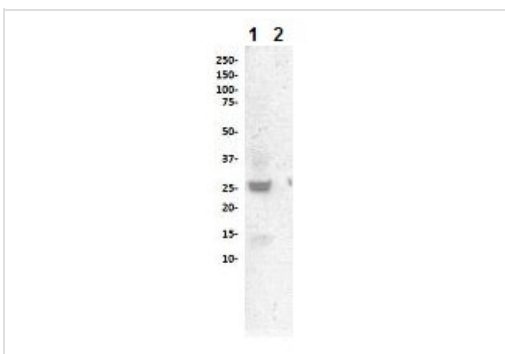
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Cleaved PARP1 antibody [SP276] (ab225715)

Formalin-fixed, paraffin-embedded human bladder transitional cell carcinoma tissue stained for Cleaved PARP1 using ab225715 at 1/100 dilution in immunohistochemical analysis.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Cleaved PARP1 antibody [SP276] (ab225715)

Formalin-fixed, paraffin-embedded human tonsil tissue stained for Cleaved PARP1 using ab225715 at 1/100 dilution in immunohistochemical analysis.



Western blot - Anti-Cleaved PARP1 antibody [SP276] (ab225715)

All lanes : Anti-Cleaved PARP1 antibody [SP276] (ab225715) at 1/100 dilution

Lane 1 : NIH/3T3 (mouse embryo fibroblast cell line) cell lysate treated with staurosporine

Lane 2 : Untreated NIH/3T3 (mouse embryo fibroblast cell line) cell lysate

Predicted band size: 113 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-Cleaved PARP1 antibody [SP276] (ab225715)

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

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