abcam

Product datasheet

Anti-PARP1 antibody [E102] ab32138

敲除验证 重组 RabMAb

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概述

产品名称	Anti-PARP1抗体[E102]
描述	兔单克隆抗体[E102] to PARP1
宿主	Rabbit
特异性	This antibody recognises both pro-form and p25 cleaved form of PARP1.
经测试应用	**适用于:** WB, IHC-P, Flow Cyt (Intra), ICC/IF **不适用于:** IP
种属反应性	**与反应:** Human
免疫原	Synthetic peptide. This information is proprietary to Abcam and/or its suppliers.
阳性对照	WB: Wild type HAP1 whole cell lysate; HeLa whole cell lysate (**ab150035**); HEK-293T cell lysate; IHC-P: Human breast carcinoma tissue; ICC/IF: HeLa cells; Flow Cyt (intra): HeLa cells, HAP1 cells. WB: Jurkat whole cell lysate.
常规说明	This product is a recombinant monoclonal antibody, which offers several advantages including: - High batch-to-batch consistency and reproducibility - Improved sensitivity and specificity - Long-term security of supply - Animal-free production For more information **see here**. Our RabMAb® technology is a patented hybridoma-based technology for making rabbit monoclonal antibodies. For details on our patents, please refer to **RabMAb® patents**. Mouse, Rat: We have preliminary internal testing data to indicate this antibody may not react with these species. Please contact us for more information.

性能

形式	Liquid
存放说明	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.
存储溶液	pH: 7.20 Preservative: 0.01% Sodium azide

	Constituents: 59% PBS, 40% Glycerol (glycerin, glycerine), 0.05% BSA
纯度	Protein A purified
克隆	单克隆
克隆编号	E102
同种型	IgG

应用

The Abpromise guarantee Abpromise™承诺保证使用ab32138于以下的经测试应用

"应用说明"部分 下显示的仅为推荐的起始稀释度;实际最佳的稀释度/浓度应由使用者检定。

应用	Ab评论	说明
WB	★★★★☆ (4)	1/1000 - 1/10000. Predicted molecular weight: 113 kDa. Existing as a 113 kDa nuclear protein, PARP1 is cleaved between amino acids Asp214 and Gly215 to yield two fragments of 29 kDa (N-terminal catalytic domain) and 85 kDa (C-terminal DNA-binding domain)
IHC-P	★★★★☆ (1)	1/200. Perform heat mediated antigen retrieval with citrate buffer pH 6 before commencing with IHC staining protocol. See **IHC antigen retrieval protocols**. **For unpurified use at 1/25.**
Flow Cyt (Intra)		1/20 - 1/50. **ab172730** - Rabbit monoclonal IgG, is suitable for use as an isotype control with this antibody.
ICC/IF	★★★★☆ (1)	1/100.

应用说明 Is unsuitable for IP.

靶标

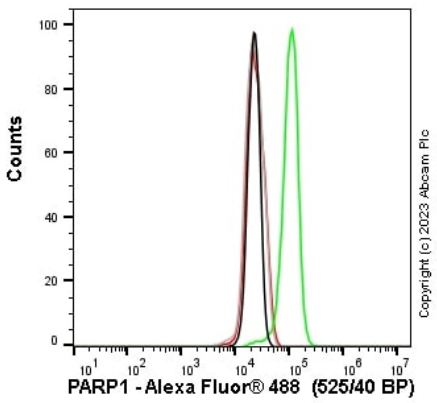
功能 Involved in the base excision repair (BER) pathway, by catalyzing the poly(ADP-ribosyl)ation of a limited number of acceptor proteins involved in chromatin architecture and in DNA metabolism. This modification follows DNA damages and appears as an obligatory step in a detection/signaling pathway leading 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.

序列相似性 Contains 1 BRCT domain.
Contains 1 PARP alpha-helical domain.
Contains 1 PARP catalytic domain.
Contains 2 PARP-type zinc fingers.

翻译后修饰 Phosphorylated by PRKDC. Phosphorylated upon DNA damage, probably by ATM or ATR. 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.

细胞定位	Nucleus.

图片



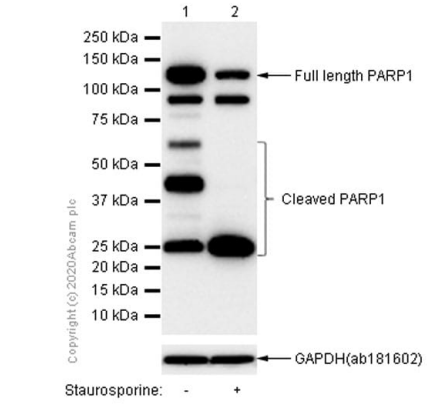
Flow Cytometry (Intracellular) - Anti-PARP1 antibody [E102] (ab32138)

Flow cytometry overlay histogram showing wild-type Hap1 (green line) and PARP1 knockout Hap1 stained with ab32138 (red line). The cells were fixed with 4% formaldehyde (10 min) and then permeabilised with 0.1% PBS-Triton X-100 for 15 min. The cells were then incubated in 1x PBS containing 10% normal goat serum to block non-specific protein-protein interaction followed by the antibody (ab32138) (1x 10^6 in 100µl at 0.04 µg/ml (1/55750)) for 30min at 22°C.

The secondary antibody Goat Anti-Rabbit IgG H&L (Alexa Fluor® 488) preadsorbed was incubated at 1/4000 for 30min at 22°C

Isotype control antibody Recombinant Rabbit IgG, monoclonal [EPR25A] - Isotype Control was used at the same concentration and conditions as the primary antibody (wild-type Hap1 - black line, PARP1 knockout Hap1 - grey line). Unlabelled sample was also used as a control (this line is not shown for the purpose of simplicity).

Acquisition of >5000 events were collected using a 50 mW Blue laser (488nm) and 525/40 bandpass filter.



Western blot - Anti-PARP1 antibody [E102] (ab32138)

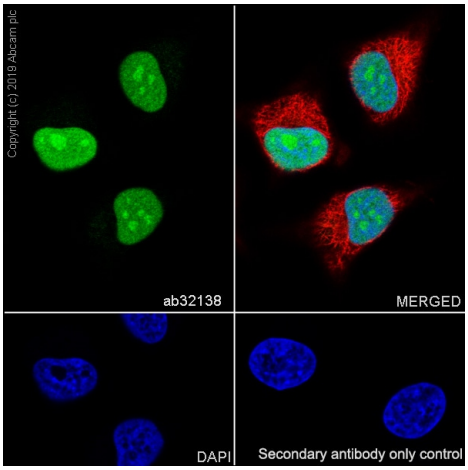
All lanes : Anti-PARP1 antibody [E102] (ab32138) at 1/1000 dilution (Purified)

Lane 1 : Untreated Jurkat (Human T cell leukemia T lymphocyte) whole cell lysate
Lane 2 : Jurkat (Human T cell leukemia T lymphocyte) treated with 1µM staurosporine for 4 hours whole cell lysate

Secondary
All lanes : Goat Anti-Rabbit IgG H&L (HRP) (**ab97051**) at 1/20000 dilution

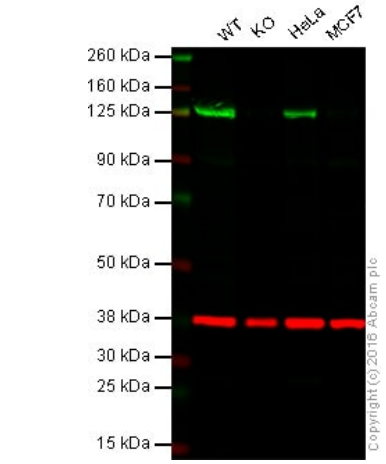
Predicted band size: 113 kDa

pro-form: 116kDa; p25 caspases cleaved form: 25kDa; proteolysis cleaved fragments: 58kDa and 42kDa



Immunocytochemistry/ Immunofluorescence - Anti-PARP1 antibody [E102] (ab32138)

Immunocytochemistry analysis of HeLa (Human cervix adenocarcinoma epithelial cell) cells labeling PARP1 with purified ab32138 at 1/100 dilution (1.0 µg/mL). Cells were fixed in 4% Paraformaldehyde and permeabilized with 0.1% TritonX-100. Cells were counterstained with Ab195889 Anti-alpha Tubulin antibody [DM1A] - Microtubule Marker (Alexa Fluor® 594) 1/200 (2.5 µg/mL). Goat anti rabbit IgG (Alexa Fluor® 488, **ab150077**) was used as the secondary antibody at 1/1000 (2 µg/mL) dilution. DAPI (blue) was used as nuclear counterstain. PBS instead of the primary antibody was used as the secondary antibody only control.

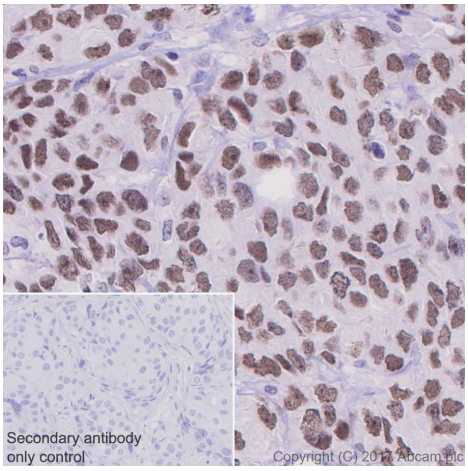


Western blot - Anti-PARP1 antibody [E102] (ab32138)

Lane 1: Wild type HAP1 whole cell lysate (20 µg)
Lane 2: PARP1 knockout HAP1 whole cell lysate (20 µg)
Lane 3: HeLa whole cell lysate (20 µg)
Lane 4: MCF7 whole cell lysate (20 µg)

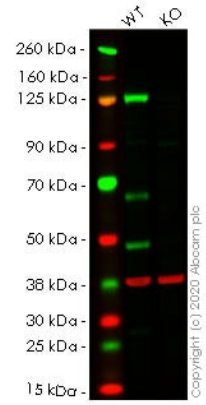
Lanes 1 - 4: Merged signal (red and green). Green - ab32138 observed at 125 kDa. Red - loading control, **ab8245**, observed at 37 kDa.

ab32138 was shown to specifically react with PARP1 when PARP1 knockout samples were used. Wild-type and PARP1 knockout samples were subjected to SDS-PAGE. ab32138 and **ab8245** (Mouse anti-GAPDH loading control) were incubated overnight at 4°C at 1/1000 dilution and 1/10 000 dilution respectively. Blots were developed with 800CW Goat anti Rabbit and 680CW Goat anti Mouse secondary antibodies at 1/10 000 dilution for 1 hour at room temperature before imaging.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-PARP1 antibody [E102] (ab32138)

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) analysis of human breast carcinoma tissue sections labeling PARP1 with purified ab32138 at 1/200 dilution (0.51 µg/mL). Heat mediated antigen retrieval was performed using Perform heat mediated antigen retrieval using **ab93684** (Tris/EDTA buffer, pH 9.0). Tissue was counterstained with Hematoxylin. ImmunoHistoProbe one step HRP Polymer (ready to use) secondary antibody was used at 1/0 dilution. PBS instead of the primary antibody was used as the negative control.



Western blot - Anti-PARP1 antibody [E102] (ab32138)

All lanes : Anti-PARP1 antibody [E102] (ab32138) at 1/1000 dilution

Lane 1 : Wild-type HEK-293T cell lysate
Lane 2 : PARP1 knockout HEK-293T cell lysate

Lysates/proteins at 20 µg per lane.

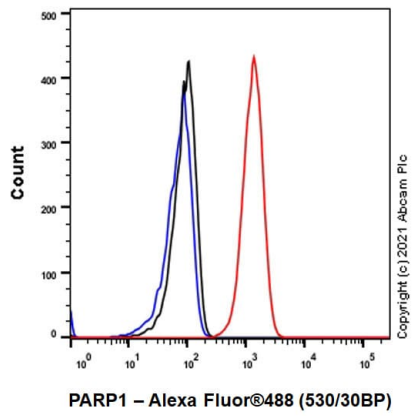
Performed under reducing conditions.

Predicted band size: 113 kDa
Observed band size: 113 kDa

Lanes 1- 2: Merged signal (red and green). Green - ab32138 observed at 113 kDa. Red - Anti-GAPDH antibody [6C5] - Loading Control (**ab8245**) observed at 37 kDa.

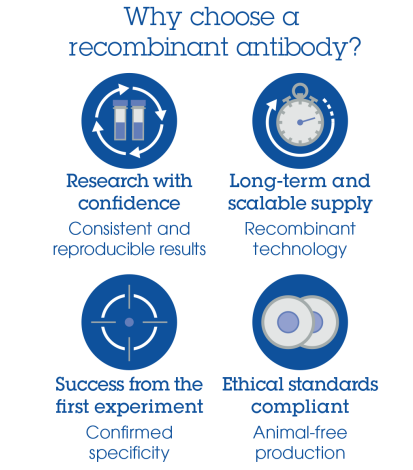
ab32138 was shown to react with PARP1 in wild-type HEK-293T cells in western blot. Loss of signal was observed when knockout cell line **ab266598** (knockout cell lysate **ab257017**) was used. Wild-type HEK-293T and PARP1 knockout HEK-293T cell lysates were subjected to SDS-PAGE. ab32138 and Anti-GAPDH antibody [6C5] - Loading Control (**ab8245**) overnight at 4°C at a 1 in 1000 dilution and a 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.



Flow Cytometry (Intracellular) - Anti-PARP1 antibody [E102] (ab32138)

Intracellular Flow Cytometry analysis of HeLa (Human cervix adenocarcinoma epithelial cell) cells labelling PARP1 with purified ab32138 at 1/20 dilution (10 µg/mL) (Red). Cells were fixed with 4% Paraformaldehyde and permeabilised with 90% Methanol. A Goat anti rabbit IgG (Alexa Fluor® 488, **ab150077**) secondary antibody was used at 1/2000. Isotype control - Rabbit monoclonal IgG (Black). Unlabelled control - Cell without incubation with primary antibody and secondary antibody (Blue).



Anti-PARP1 antibody [E102] (ab32138)

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