

## Product datasheet

# Anti-PARP1 antibody [E102] ab32138

**KO VALIDATED** Recombinant RabMAB<sup>®</sup>

★★★★☆ 3 Abreviews 24 References 5 Images

### Overview

<b>Product name</b>	Anti-PARP1 antibody [E102]
<b>Description</b>	Rabbit monoclonal [E 102] to PARP1
<b>Host species</b>	Rabbit
<b>Specificity</b>	ab32138 recognises both pro-form and p25 cleaved form of PARP1.
<b>Tested applications</b>	<b>Suitable for:</b> WB, IHC-P, Flow Cyt, ICC/IF
<b>Species reactivity</b>	<b>Reacts with:</b> Mouse, Rat, Human
<b>Immunogen</b>	Synthetic peptide within Human PARP1 (N terminal). The exact sequence is proprietary.
<b>Positive control</b>	WB: Jurkat cell lysate. IHC-P: Human brain tissue.
<b>General notes</b>	<p>A trial size is available to purchase for this antibody.</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> <p>This product is a recombinant rabbit monoclonal antibody.</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. Avoid freeze / thaw cycle.
<b>Storage buffer</b>	PBS 49%, Sodium azide 0.01%, Glycerol 50%, BSA 0.05%
<b>Purity</b>	IgG fraction
<b>Clonality</b>	Monoclonal
<b>Clone number</b>	E102
<b>Isotype</b>	IgG

### Applications

Our [Abpromise guarantee](#) covers the use of **ab32138** in the following tested applications.

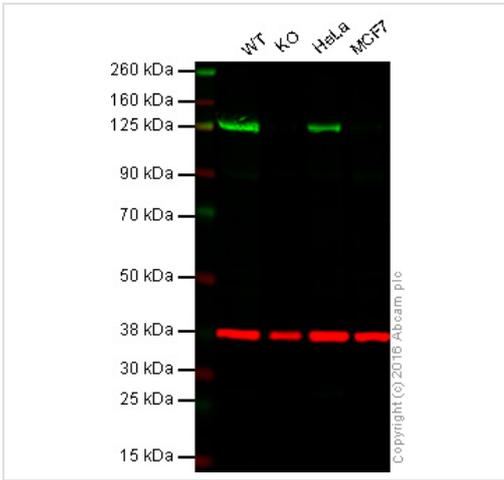
The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Application	Abreviews	Notes
WB	★★★★★	1/1000 - 1/10000. 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	★★★★☆	1/25.
Flow Cyt		1/50. <a href="#">ab172730</a> - Rabbit monoclonal IgG, is suitable for use as an isotype control with this antibody.
ICC/IF	★★★★☆	1/100 - 1/200. Use with paraformaldehyde fixed cells.

## Target

<b>Function</b>	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.
<b>Sequence similarities</b>	Contains 1 BRCT domain. Contains 1 PARP alpha-helical domain. Contains 1 PARP catalytic domain. Contains 2 PARP-type zinc fingers.
<b>Post-translational modifications</b>	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.
<b>Cellular localization</b>	Nucleus.

## Images



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

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

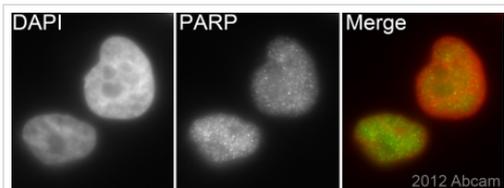
**Lane 2:** PARP1 knockout HAP1 whole cell lysate (20 µg)

**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.

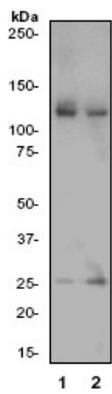
ab32138 was shown to specifically react with PARP1 when PARP1 knockout samples were used. Wild-type and PARP1 knockout samples were subjected to SDS-PAGE. ab32138 and ab8245 (Mouse anti-GAPDH loading control) were incubated overnight at 4°C at 1/1000 dilution and 1/10 000 dilution respectively. Blots 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.



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

Image courtesy of an Abreview submitted by Dr. Kirk McManus, Univ. of Manitoba/Cancer Care MCB, Canada

ab32138 (1/200) staining PARP1 in HeLa cells (green). Cells were fixed in paraformaldehyde, permeabilised in 0.5% Triton X100/PBS and counterstained with DAPI in order to highlight the nucleus (red). For further experimental details please refer to Abreview.



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

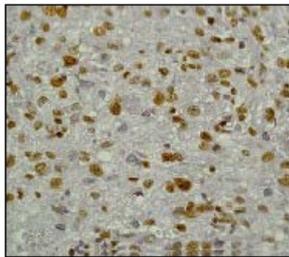
**Lane 1 :** Jurkat cell lysate

**Lane 2 :** Jurkat + Camptothecin cell lysate

**Predicted band size:** 113 kDa

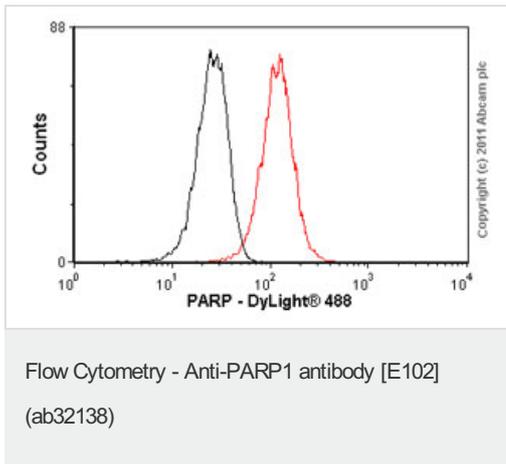
**Observed band size:** 120,25 kDa

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



Immunohistochemical analysis of PARP1  
expression in paraffin embedded human brain  
tissue section, using 1/25 ab32138.

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



Overlay histogram showing Jurkat cells stained with ab32138 (red line). The cells were fixed with methanol (5 min) and then permeabilized with 0.1% PBS-Tween for 20 min. The cells were then incubated in 1x PBS / 10% normal goat serum / 0.3M glycine to block non-specific protein-protein interactions followed by the antibody (ab32138, 1/50 dilution) for 30 min at 22°C. The secondary antibody used was DyLight® 488 goat anti-rabbit IgG (H+L) (ab96899) at 1:500 dilution for 30 min at 22°C. Isotype control antibody (black line) was rabbit monoclonal IgG (0.5µg/1x10<sup>6</sup> cells) used under the same conditions. Acquisition of >5,000 events was performed. This antibody gave a decreased signal in Jurkat cells fixed with 4% paraformaldehyde (10 min)/permeabilized in 0.1% PBS-Tween used under the same conditions.

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