abcam

Product datasheet

Anti-Cleaved PARP1 antibody [Y34] - BSA and Azide free ab219953

KO VALIDATED Recombinant RabMAb

15 References 3 Images

Overview

Product name	Anti-Cleaved PARP1 antibody [Y34] - BSA and Azide free
Description	Rabbit monoclonal [Y34] to Cleaved PARP1 - BSA and Azide free
Host species	Rabbit
Specificity	This antibody is specific for p85 cleaved form of PARP1.
Tested applications	**Suitable for:** Flow Cyt (Intra), WB, ICC/IF, IP
Species reactivity	**Reacts with:** Human
Immunogen	Synthetic peptide. This information is proprietary to Abcam and/or its suppliers.
Positive control	Flow Cyt (intra): Jurkat cell lysate. IP: HeLa whole cell lysate. ICC/IF: HeLa cells.
General notes	ab219953 is the carrier-free version of **ab32561**. Our **carrier-free** antibodies are typically supplied in a PBS-only formulation, purified and free of BSA, sodium azide and glycerol. The carrier-free buffer and high concentration allow for increased conjugation efficiency. This conjugation-ready format is designed for use with fluorochromes, metal isotopes, oligonucleotides, and enzymes, which makes them ideal for antibody labelling, functional and cell-based assays, flow-based assays (e.g. mass cytometry) and Multiplex Imaging applications. Use our **conjugation kits** for antibody conjugates that are ready-to-use in as little as 20 minutes with <1 minute hands-on-time and 100% antibody recovery: available for fluorescent dyes, HRP, biotin and gold. This product is compatible with the Maxpar® Antibody Labeling Kit from Fluidigm, without the need for antibody preparation. Maxpar® is a trademark of Fluidigm Canada Inc. 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.

Properties

Form	Liquid
Storage instructions	Shipped at 4°C. Store at +4°C. Do Not Freeze.
Storage buffer	pH: 7.20 Constituent: PBS
Carrier free	Yes
Purity	IgG fraction
Clonality	Monoclonal
Clone number	Y34
Isotype	IgG

Applications

The Abpromise guarantee Our **Abpromise guarantee** covers the use of ab219953 in the following tested applications.

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

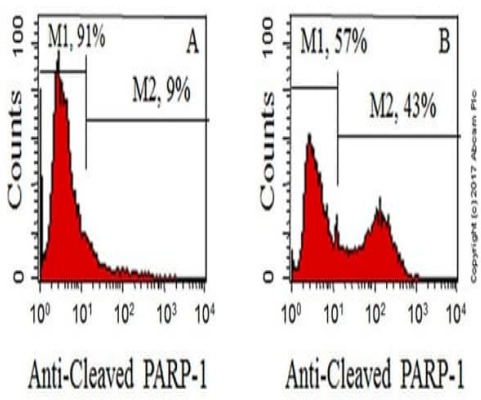
Application	Abreviews	Notes
Flow Cyt (Intra)		Use at an assay dependent concentration. **ab199376**- Rabbit monoclonal IgG, is suitable for use as an isotype control with this antibody.
WB		Use at an assay dependent concentration. Predicted molecular weight: 85 kDa.
ICC/IF		Use at an assay dependent concentration.
IP		Use at an assay dependent concentration.

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.

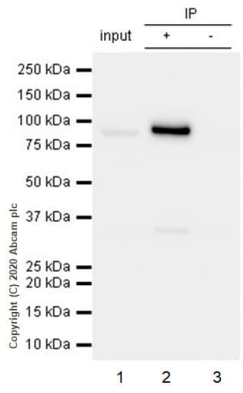
Images



Flow Cytometry (Intracellular) - Anti-Cleaved PARP1 antibody [Y34] - BSA and Azide free (ab219953)

Primary ab 1/50 dilution (0.5µg / Red). Secondary ab Goat anti rabbit IgG (FITC). Secondary ab concentration 1/150 dilution. Cell line Jurkat (human acute T cell leukemia) treated with (Right) or without (Left) 4µM Camptothecin for 5h. Fixative 4% paraformaldehyde. Datasheet comment Intracellular flow cytometric analysis of apoptotic and non-apoptotic Jurkat cells using anti-cleaved PARP1 RabMAb (**ab32561**). Jurkat cells were either left untreated (A) or treated with camptothecin (4 uM, 5 hr) to induce apoptosis (B). Cells were fixed and permeabilized , and then stained with anti-cleaved PARP1. The results indicate that 43% of cells were positive for cleaved PARP1 (B, M2) after treatment, compared to 9% positive without treatment (A, M2).

This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (**ab32561**).



Immunoprecipitation - Anti-Cleaved PARP1 antibody [Y34] - BSA and Azide free (ab219953)

This data was developed using **ab32561**, the same antibody clone in a different buffer formulation.

Purified **ab32561** at 1/50 dilution (2µg) immunoprecipitating Cleaved PARP1 in HeLa whole cell lysate.

Lane 1 (input): HeLa (Human cervix adenocarcinoma epithelial cell) whole cell lysate 10µg

Lane 2 (+): **ab32561** + HeLa whole cell lysate.

Lane 3 (-): Rabbit monoclonal IgG (**ab172730**) instead of **ab32561** in HeLa whole cell lysate.

VeriBlot for IP Detection Reagent (HRP) (**ab131366**) (1/1000 dilution) was used for Western blotting.

Blocking Buffer and concentration: 5% NFDM/TBST.

Diluting buffer and concentration: 5% NFDM/TBST.

Observed band size: 85 kDa

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