abcam

Product datasheet

Alexa Fluor® 488 Anti-Cleaved PARP1 antibody [Y34] ab237432

Recombinant RabMAb

3 Images

Overview

Product name	Alexa Fluor® 488 Anti-Cleaved PARP1 antibody [Y34]
Description	Alexa Fluor® 488 Rabbit monoclonal [Y34] to Cleaved PARP1
Host species	Rabbit
Conjugation	Alexa Fluor® 488. Ex: 495nm, Em: 519nm
Specificity	This antibody is specific for p85 cleaved form of PARP1.
Tested applications	**Suitable for:** ICC/IF, Flow Cyt (Intra)
Species reactivity	**Reacts with:** Human
Immunogen	Synthetic peptide. This information is proprietary to Abcam and/or its suppliers.
Positive control	ICC/IF: MCF7 cells treated with Staurosporine (1ÂµM, 5 hr). Flow Cyt (intra): Staurosporine treated MCF7 cells.
General notes	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**. Alexa Fluor® is a registered trademark of Molecular Probes, Inc, a Thermo Fisher Scientific Company. The Alexa Fluor® dye included in this product is provided under an intellectual property license from Life Technologies Corporation. As this product contains the Alexa Fluor® dye, the purchase of this product conveys to the buyer the non-transferable right to use the purchased product and components of the product only in research conducted by the buyer (whether the buyer is an academic or for-profit entity). As this product contains the Alexa Fluor® dye the sale of this product is expressly conditioned on the buyer not using the product or its components, or any materials made using the product or its components, in any activity to generate revenue, which may include, but is not limited to use of the product or its components: in manufacturing; (ii) to provide a service, information, or data in return for payment (iii) for therapeutic, diagnostic or prophylactic purposes; or (iv) for resale, regardless of whether they are sold for use in research. For information on purchasing a license to this product for purposes other than research, contact

Life Technologies Corporation, 5781 Van Allen Way, Carlsbad, CA 92008 USA or **outlicensing@thermofisher.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. Avoid freeze / thaw cycle. Stable for 12 months at -20°C. Store In the Dark.
Storage buffer	pH: 7.40 Preservative: 0.02% Sodium azide Constituents: 30% Glycerol (glycerin, glycerine), 1% BSA, PBS
Purity	Protein A purified
Clonality	Monoclonal
Clone number	Y34
Isotype	IgG

Applications

The Abpromise guarantee Our **Abpromise guarantee** covers the use of ab237432 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
ICC/IF		1/1000. This product gave a positive signal in MCF7 cells treated with Staurosporine (1µM, 5 hr) fixed with 4% formaldehyde (10 min)
Flow Cyt (Intra)		1/5000.

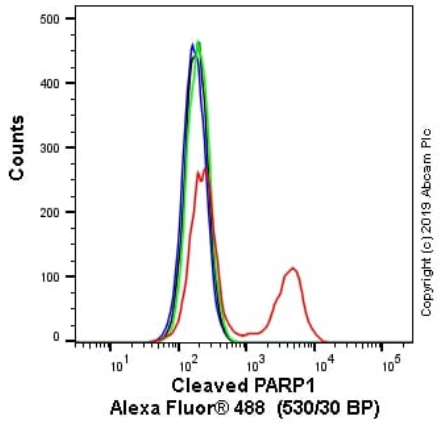
Target

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.

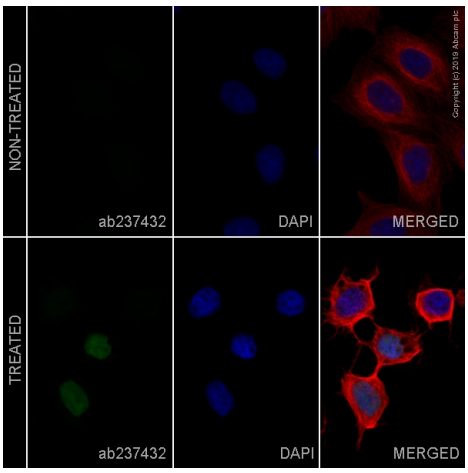
Images



Flow Cytometry (Intracellular) - Alexa Fluor® 488 Anti-Cleaved PARP1 antibody [Y34] (ab237432)

Overlay histogram showing MCF7 cells treated (red line) or untreated (green line) with 1 µM Staurosporine for 5 hrs and subsequent staining with ab237432. The cells were fixed with 4% formaldehyde (10 min) and then permeabilized with 0.1% PBS-Triton X-100 for 15 min. The cells were then incubated in 1x PBS/10% normal Goat serum to block non-specific protein-protein interactions followed by the antibody (ab237432) (1x 10^6 in 100 µl at 0.1 µg/ml (1/5000 dilution)) for 30 min at 22°C.

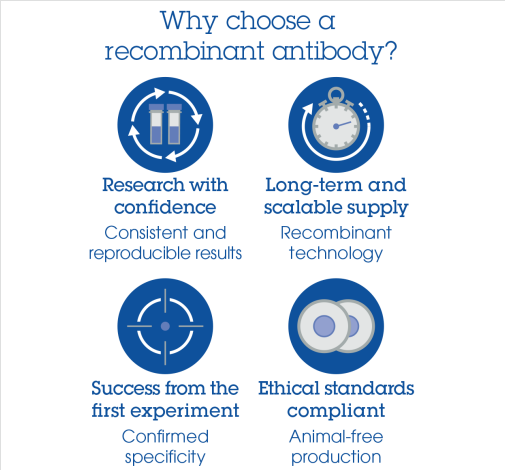
Isotype control antibody (black line) was Rabbit IgG (monoclonal) Alexa Fluor® 488 (**ab199091**) used at the same concentration and conditions as the primary antibody. Unlabeled sample (blue line) was also used as a control. Acquisition of >5,000 events were collected using a 50 mW Blue laser (488nm) and 530/30 bandpass filter.



Immunocytochemistry/ Immunofluorescence - Alexa Fluor® 488 Anti-Cleaved PARP1 antibody [Y34] (ab237432)

ab237432 staining Cleaved PARP1 in MCF7 cells Staurosporine-treated (1µM, 5 hr). The cells were fixed with 4% formaldehyde (10 min), permeabilized with 0.1% Triton X-100 for 5 minutes and then blocked with 1% BSA/10% normal goat serum/0.3M glycine in 0.1% PBS-Tween for 1h. The cells were then incubated overnight at +4°C with ab237432 at 1/1000 dilution (shown in green) and **ab195884**, Rat monoclonal to Tubulin (Alexa Fluor® 647), at 1/250 dilution (shown in red). Nuclear DNA was labelled with DAPI (shown in blue).

Image was taken with a confocal microscope (Leica-Microsystems, TCS SP8).



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