abcam

Product datasheet

Anti-CtIP antibody [EPNCIR160] ab155988

Recombinant RabMAb

★★★★★ 2 Abreviews 3 References 3 Images

Overview

Product name	Anti-CtIP antibody [EPNCIR160]
Description	Rabbit monoclonal [EPNCIR160] to CtIP
Host species	Rabbit
Tested applications	**Suitable for:** Flow Cyt (Intra), WB **Unsuitable for:** ICC/IF,IHC-P or IP
Species reactivity	**Reacts with:** Human
Immunogen	Synthetic peptide corresponding to Human CtIP. Database link: **Q99708**
Positive control	Jurkat and MCF-7 cell lysates; Jurkat cells.
General notes	This antibody was developed as part of a collaboration between Epitomics, the National Cancer Institute's Center for Cancer Research and the lab of Andre Nussenzweig. **View antibodies from NCI Center for Cancer Research Collaboration**. 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 -20ºC.
Storage buffer	pH: 7.2 Preservative: 0.01% Sodium azide Constituents: 9% PBS, 40% Glycerol (glycerin, glycerine), 0.05% BSA, 50% Tissue culture

	supernatant
Purity	Tissue culture supernatant
Clonality	Monoclonal
Clone number	EPNCIR160
Isotype	IgG

Applications

The Abpromise guarantee Our **Abpromise guarantee** covers the use of ab155988 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)		1/100 - 1/500. **ab172730** - Rabbit monoclonal IgG, is suitable for use as an isotype control with this antibody.
WB	★★★★★ (2)	1/1000 - 1/10000. Predicted molecular weight: 101 kDa.

Application notes Is unsuitable for ICC/IF,IHC-P or IP.

Target

Function Endonuclease that cooperates with the MRE11-RAD50-NBN (MRN) complex in processing meiotic and mitotic double-strand breaks (DSBs) by ensuring both resection and intrachromosomal association of the broken ends. Functions downstream of the MRN complex and ATM, promotes ATR activation and its recruitment to DSBs in the S/G2 phase facilitating the generation of ssDNA. Component of the BRCA1-RBBP8 complex that regulates CHEK1 activation and controls cell cycle G2/M checkpoints on DNA damage. Promotes microhomology-mediated alternative end joining (A-NHEJ) during class-switch recombination and plays an essential role in chromosomal translocations.

Involvement in disease Seckel syndrome 2
Jawad syndrome
Genetic variability in RBBP8 is noted as a factor in BRCA1-associated breast cancer risk (PubMed:21799032). Exhibits sensitivity to tamoxifen in certain breast cancer cell lines (PubMed:18171986).

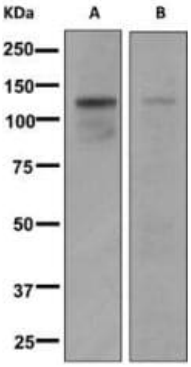
Sequence similarities Belongs to the COM1/SAE2/CtIP family.

Domain The PXDLS motif binds to a cleft in CtBP proteins.
The damage-recruitment motif is required for DNA binding and translocation to sites of DNA damage.

Post-translational modifications Acetylated. Deacetylation by SIRT6 upon DNA damage promotes DNA end resection. Hyperphosphorylation upon ionizing radiation results in dissociation from BRCA1. Phosphorylation at Thr-847 by CDK1 is essential for the recruitment to DNA and the DNA repair function. Phosphorylated on Ser-327 as cells enter G2 phase. This phosphorylation is required for binding BRCA1 and for the G2/M DNA damage transition checkpoint control. Ubiquitinated (PubMed:14654780, PubMed:16818604). Ubiquitination at multiple sites by BRCA1 (via its N-terminal RING domain) does not lead to its proteosomal degradation but

	instead the ubiquitinated RBBP8 binds to chromatin following DNA damage and may play a role in G2/M checkpoint control (PubMed:16818604). Ubiquitinated by RNF138 at its N-terminus (PubMed:26502057).
Cellular localization	Nucleus. Chromosome. Associates with sites of DNA damage in S/G2 phase (PubMed:10764811). Ubiquitinated RBBP8 binds to chromatin following DNA damage (PubMed:16818604).

Images



Western blot - Anti-CtIP antibody [EPNCIR160] (ab155988)

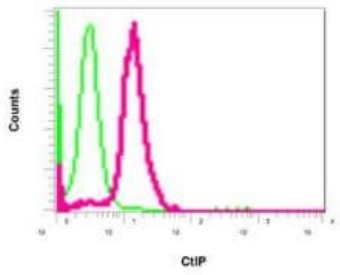
All lanes : Anti-CtIP antibody [EPNCIR160] (ab155988) at 1/1000 dilution

Lane 1 : Jurkat cell lysate
Lane 2 : MCF-7 cell lysate

Lysates/proteins at 10 µg per lane.

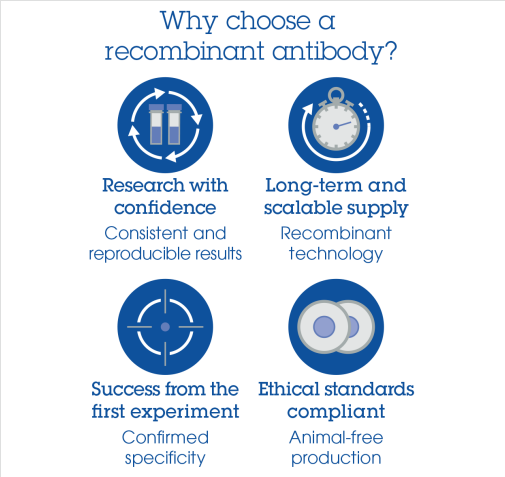
Secondary
All lanes : Goat anti-rabbit HRP at 1/2000 dilution

Predicted band size: 101 kDa



Flow Cytometry (Intracellular) - Anti-CtIP antibody [EPNCIR160] (ab155988)

Intracellular flow cytometric analysis of permeabilized Jurkat cells labeling CtIP with ab155988 at 1/100 dilution (red) compared to a rabbit IgG negative control (green).



Anti-CtIP antibody [EPNCIR160] (ab155988)

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