abcam

ab79416

Anti-RBBP4 antibody [EPR3411] - ChIP Grade

Recombinant | RabMAb | Advanced Validation

Key facts

Isotype	IgG
Host species	Rabbit
Storage buffer	pH: 7.2 - 7.4 Preservative: 0.01% Sodium azide Constituents: PBS, 40% Glycerol (glycerin, glycerine), 0.05% BSA
Form	Liquid
Clonality	Monoclonal
Immunogen	The exact immunogen used to generate this antibody is proprietary information.
Clone number	EPR3411
Purification technique	Affinity purification Protein A
Concentration	0.5 mg/mL The concentration of this product may be batch-dependent Batch concentration finder →

Reactivity data

IHC-P

Tested

Species	Mouse
Dilution info	1/8000
Notes	**For unpurified use at 1/100 - 1/250** Perform heat-mediated antigen retrieval before commencing with IHC staining protocol.

Species	Rat
Dilution info	1/8000
Notes	**For unpurified use at 1/100 - 1/250** Perform heat-mediated antigen retrieval before commencing with IHC staining protocol.

Species	Human
Dilution info	1/8000
Notes	**For unpurified use at 1/100 - 1/250** Perform heat-mediated antigen retrieval before commencing with IHC staining protocol.

ICC/IF

Tested

Species	Human
Dilution info	1/100 - 1/250
Notes	-

Expected

Species	Mouse, Rat
Dilution info	Use at an assay dependent concentration.
Notes	-

IP

Tested

Species	Human
Dilution info	1/20
Notes	**For unpurified use at 1/50**

Expected

Species	Mouse, Rat

Dilution info	Use at an assay dependent concentration.
Notes	-

WB

Tested

Species	Human
Dilution info	1/10000 - 1/50000
Notes	-

Expected

Species	Mouse, Rat
Dilution info	Use at an assay dependent concentration.
Notes	-

ChIP-seq

Tested

Species	Human
Dilution info	3 µg for 30 µg chromatin
Notes	-

Expected

Species	Mouse, Rat
Dilution info	Use at an assay dependent concentration.
Notes	-

Flow Cyt (Intra)

Tested

Species	Human
Dilution info	1/20

Notes	ab172730 - Rabbit monoclonal IgG, is suitable for use as an isotype control with this antibody. For unpurified use at 1/50

Expected

Species	Mouse, Rat
Dilution info	Use at an assay dependent concentration.
Notes	-

ChIC/CUT&RUN-seq

Tested

Species	Human
Dilution info	5 µg
Notes	-

Expected

Species	Mouse, Rat
Dilution info	Use at an assay dependent concentration.
Notes	-

Target data

See full target information RBBP4

Function

Core histone-binding subunit that may target chromatin assembly factors, chromatin remodeling factors and histone deacetylases to their histone substrates in a manner that is regulated by nucleosomal DNA (PubMed:10866654). Component of the chromatin assembly factor 1 (CAF-1) complex, which is required for chromatin assembly following DNA replication and DNA repair (PubMed:8858152). Component of the core histone deacetylase (HDAC) complex, which promotes histone deacetylation and consequent transcriptional repression (PubMed:9150135). Component of the nucleosome remodeling and histone deacetylase complex (the NuRD complex), which promotes transcriptional repression by histone deacetylation and nucleosome remodeling (PubMed:16428440, PubMed:28977666, PubMed:39460621). Component of the PRC2 complex, which promotes repression of homeotic genes during development (PubMed:29499137, PubMed:31959557). Component of the NURF (nucleosome remodeling factor) complex (PubMed:14609955, PubMed:15310751).

Storage

Shipped at conditions	Conditional Ambient
Appropriate short-term storage duration	1-2 weeks
Appropriate short-term storage conditions	+4°C
Appropriate long-term storage conditions	-20°C
Aliquoting information	Upon delivery aliquot
Storage information	Avoid freeze / thaw cycle

Notes

Patented technology
Our RabMAb® technology is a patented hybridoma-based technology for making rabbit monoclonal antibodies. For details on our patents, please refer to RabMAb® patents.

What are the advantages of a recombinant monoclonal antibody?
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 batch production

For more information, read more on recombinant antibodies.

Product promise

Tested

We have tested this species and application combination and it works. It is covered by our product promise.

Expected

We have not tested this specific species and application combination in-house, but expect it will work. It is covered by our product promise.

Predicted

This species and application combination has not been tested, but we predict it will work based on strong homology. However, this combination is not covered by our product promise.

Not recommended

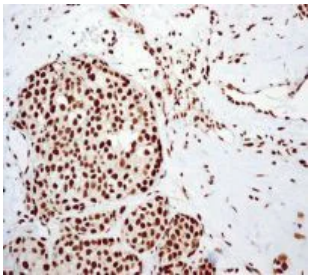
We do not recommend this combination. It is not covered by our product promise.

We are dedicated to supporting your work with high quality reagents and we are here for you every step of the way should you need us.

In the unlikely event of one of our products not working as expected, you are covered by our product promise.

Full details and terms and conditions can be found here:
Terms & Conditions.

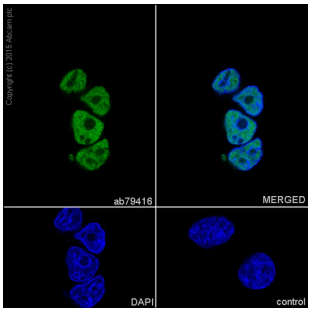
16 product images



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-RBBP4 antibody [EPR3411] - ChIP Grade (ab79416)

RBBP4 Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining using rabbit Anti-RBBP4 antibody

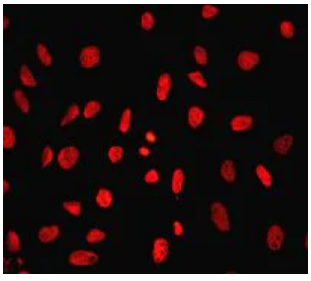
Unpurifed ab79416, at 1/100 dilution, staining RBBP4 in human breast carcinoma tissue by Immunohistochemistry.
Heat mediated antigen retrieval was performed before commencing with IHC staining protocol.



Immunocytochemistry/ Immunofluorescence - Anti-RBBP4 antibody [EPR3411] - ChIP Grade (ab79416)

RBBP4 Immunocytochemistry/ Immunofluorescence staining using rabbit Anti-RBBP4 antibody

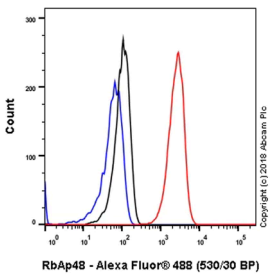
ab79416 staining RBBP4 in MCF-7 (human breast carcinoma) cells by ICC (Immunocytochemistry). Cells were fixed with 4% Paraformaldehyde and permeabilized with 0.1% tritonX-100. Samples were incubated with primary antibody at a dilution of 1/500. A goat anti rabbit IgG (Alexa Fluor® 488) (ab150077) was used as the secondary antibody at a dilution of 1/1000. DAPI was used as a nuclear counterstain.
Negative control 1: PBS only.



Immunocytochemistry/ Immunofluorescence - Anti-RBBP4 antibody [EPR3411] - ChIP Grade (ab79416)

RBBP4 Immunocytochemistry/ Immunofluorescence staining using rabbit Anti-RBBP4 antibody

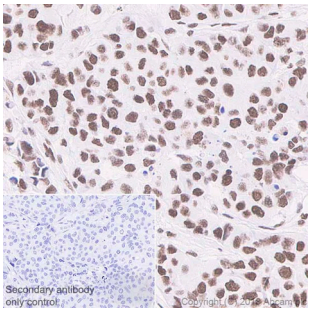
Immunocytochemical staining of RBBP4 in HeLa cells using unpurified ab79416 at 1/100 dilution.



Flow Cytometry (Intracellular) - Anti-RBBP4 antibody [EPR3411] - ChIP Grade (ab79416)

RBBP4 Flow Cytometry (Intracellular) staining using rabbit Anti-RBBP4 antibody

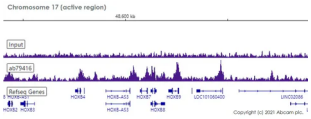
Intracellular Flow Cytometry analysis of MCF7 (Human breast adenocarcinoma epithelial cell) cells labeling RBBP4 with purified ab79416 at 1/20 dilution (10µg/ml) (red). Cells were fixed with 4% Paraformaldehyde. A Goat anti rabbit IgG (Alexa Fluor® 488) secondary antibody was used at 1/2000 dilution. Isotype control - Rabbit monoclonal IgG (Black). Unlabeled control - Cell without incubation with primary antibody and secondary antibody (Blue).



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-RBBP4 antibody [EPR3411] - ChIP Grade (ab79416)

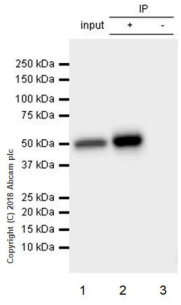
RBBP4 Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining using rabbit Anti-RBBP4 antibody

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) analysis of Human breast cancer tissue sections labeling RBBP4 with Purified ab79416 at 1:8000 dilution (0.014 µg/ml). Heat mediated antigen retrieval was performed using ab93684 (Tris/EDTA buffer, pH 9.0) ImmunoHistoProbe one step HRP Polymer (ready to use)was used as the secondary antibody. Negative control:PBS instead of the primary antibody. Hematoxylinwas used as a counterstain



ChIP-sequencing - Anti-RBBP4 antibody [EPR3411] - ChIP Grade (ab79416)

Chromatin was prepared from HeLa cells. Cells were fixed with 1% formaldehyde for 10 minutes. ChIP was performed with 10^7 HeLa cells and 8 µg of ab79416 [EPR3411]. ChIP DNA was sequenced on the Illumina NovaSeq 6000 to a depth of 30 million reads.
Additional screenshots of mapped reads can be downloaded here.

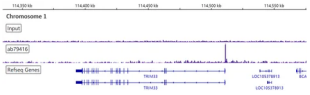


Immunoprecipitation - Anti-RBBP4 antibody [EPR3411] - ChIP Grade (ab79416)

ab79416 (purified) at 1:20 dilution (2µg) immunoprecipitating RBBP4 in HeLa whole cell lysate.
Lane 1 (input): HeLa (Human cervix adenocarcinoma epithelial cell) whole cell lysate 10µg
Lane 2 (+): ab79416 & HeLa whole cell lysate
Lane 3 (-): Rabbit monoclonal IgG (ab172730) instead of ab79416 in HeLa whole cell lysate
For western blotting, VeriBlot for IP Detection Reagent (HRP) (ab131366) was used for detection at 1:1000 dilution.
Blocking and diluting buffer: 5% NFDM/TBST.
All lanes:
Immunoprecipitation - Anti-RBBP4 antibody [EPR3411] - ChIP Grade (ab79416)

Predicted band size: 48 kDa

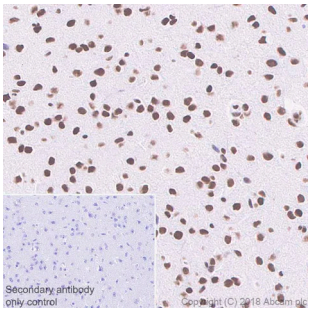
Observed band size: 33 kDa, 42 kDa



ChIP-sequencing - Anti-RBBP4 antibody [EPR3411] - ChIP Grade (ab79416)

Chromatin was prepared from HeLa cells. Cells were fixed with 1% formaldehyde for 10 minutes. ChIP was performed with 30 µg of chromatin and 3 µg of ab79416. ChIP DNA was sequenced on the Illumina NextSeq 500 to a depth of 30 million reads. ChIP-Seq validation performed by Active Motif, Carlsbad, CA.
Additional screenshots of mapped reads can be downloaded here.

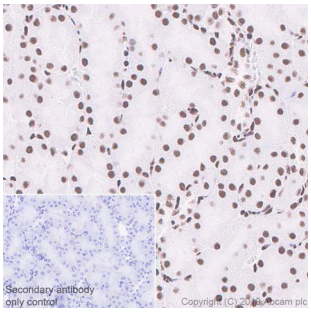
DOI: 10.7554/eLife.54993.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-RBBP4 antibody [EPR3411] - ChIP Grade (ab79416)

RBBP4 Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining using rabbit Anti-RBBP4 antibody

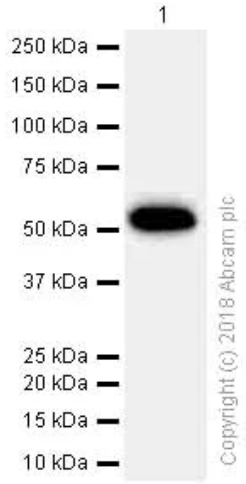
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) analysis of Mouse cerebrum tissue sections labeling RBBP4 with Purified ab79416 at 1:8000 dilution (0.014 µg/ml). Heat mediated antigen retrieval was performed using ab93684 (Tris/EDTA buffer, pH 9.0) ImmunoHistoProbe one step HRP Polymer (ready to use) was used as the secondary antibody. Negative control:PBS instead of the primary antibody.Hematoxylinwas used as a counterstain



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-RBBP4 antibody [EPR3411] - ChIP Grade (ab79416)

RBBP4 Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining using rabbit Anti-RBBP4 antibody

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) analysis of Rat pancreas tissue sections labeling RBBP4 with Purified ab79416 at 1:8000 dilution (0.014 µg/ml). Heat mediated antigen retrieval was performed using ab93684 (Tris/EDTA buffer, pH 9.0) ImmunoHistoProbe one step HRP Polymer (ready to use) was used as the secondary antibody. Negative control:PBS instead of the primary antibody.Hematoxylinwas used as a counterstain



Western blot - Anti-RBBP4 antibody [EPR3411] - ChIP Grade (ab79416)

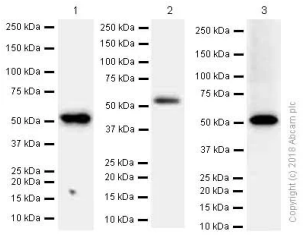
Blocking and diluting buffer: 5% NFDM/TBST.
All lanes:
Western blot - Anti-RBBP4 antibody [EPR3411] - ChIP Grade (ab79416) at 0.006 µg/mL

All lanes:
Human fetal spleen lysates at 15 µg

Secondary

All lanes:
Goat Anti-Rabbit IgG (HRP) with minimal cross-reactivity with human IgG at 1/2000 dilution

Predicted band size: 48 kDa



Western blot - Anti-RBBP4 antibody [EPR3411] - ChIP Grade (ab79416)

Blocking and diluting buffer: 5% NFDM/TBST.
All lanes:
Western blot - Anti-RBBP4 antibody [EPR3411] - ChIP Grade (ab79416) at 0.006 µg/mL

Lane 1:
HeLa (Human cervix adenocarcinoma epithelial cell) whole cell lysates at 15 µg

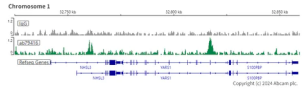
Lane 2:
Mouse spleen lysates at 15 µg

Lane 3:
Rat spleen lysates at 15 µg

Secondary

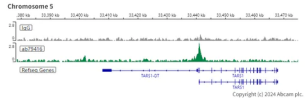
All lanes:
Western blot - Goat Anti-Rabbit IgG H&L (HRP) (ab97051) at 1/20000 dilution

Predicted band size: 48 kDa



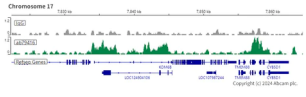
ChIC/CUT&RUN sequencing - Anti-RBBP4 antibody [EPR3411] - ChIP Grade (ab79416)

ChIC/CUT&RUN was performed using a pAG-MNase at a final concentration of 700 ng/mL, 2.5 x 10^5 HeLa (Human cervix adenocarcinoma epithelial cell) cells and 5 µg of ab79416 [EPR3411]. The resulting DNA was sequenced on the Illumina NovaSeq 6000 to a depth of 10 million reads. The negative IgG control ab172730 is also shown. The University of Geneva owns patents relevant to ChIC (Chromatin Immuno-Cleavage) methods.



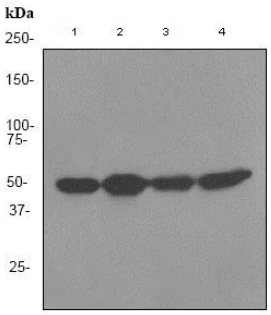
ChIC/CUT&RUN sequencing - Anti-RBBP4 antibody [EPR3411] - ChIP Grade (ab79416)

ChIC/CUT&RUN was performed using a pAG-MNase at a final concentration of 700 ng/mL, 2.5 x 10^5 HeLa (Human cervix adenocarcinoma epithelial cell) cells and 5 µg of ab79416 [EPR3411]. The resulting DNA was sequenced on the Illumina NovaSeq 6000 to a depth of 10 million reads. The negative IgG control ab172730 is also shown. The University of Geneva owns patents relevant to ChIC (Chromatin Immuno-Cleavage) methods.



ChIC/CUT&RUN sequencing - Anti-RBBP4 antibody [EPR3411] - ChIP Grade (ab79416)

ChIC/CUT&RUN was performed using a pAG-MNase at a final concentration of 700 ng/mL, 2.5 x 10^5 HeLa (Human cervix adenocarcinoma epithelial cell) cells and 5 µg of ab79416 [EPR3411]. The resulting DNA was sequenced on the Illumina NovaSeq 6000 to a depth of 10 million reads. The negative IgG control ab172730 is also shown. The University of Geneva owns patents relevant to ChIC (Chromatin Immuno-Cleavage) methods.



Western blot - Anti-RBBP4 antibody [EPR3411] - ChIP Grade (ab79416)

All lanes:
Western blot - Anti-RBBP4 antibody [EPR3411] - ChIP Grade (ab79416) at 1/50000 dilution

Lane 1:
HeLa lysate at 10 µg

Lane 2:
Jurkat lysate at 10 µg

Lane 3:
NIIH/3T3 lysate at 10 µg

Lane 4:
293 lysate at 10 µg

Secondary

All lanes:
HRP labelled goat anti-rabbit at 1/2000 dilution

Predicted band size: 48 kDa

Observed band size: 48 kDa

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.