abcam

ab232622

Anti-ZMYND8 antibody [EPR16924] - BSA and Azide free

Recombinant | RabMAb

Key facts

Isotype	IgG
Host species	Rabbit
Storage buffer	pH: 7.2 - 7.4 Constituents: PBS
Form	Liquid
Clonality	Monoclonal
Immunogen	The exact immunogen used to generate this antibody is proprietary information.
Carrier free	Yes
Clone number	EPR16924
Purification technique	Affinity purification Protein A
Concentration	1.001 mg/mL The concentration of this product may be batch-dependent Batch concentration finder →

Reactivity data

WB

Expected

Species	Human
Dilution info	Use at an assay dependent concentration.

Notes	-

ICC/IF

Tested

Species	Human
Dilution info	-
Notes	-

Flow Cyt (Intra)

Tested

Species	Human
Dilution info	-
Notes	-

IHC-P

Tested

Species	Human
Dilution info	-
Notes	-

Target data

See full target information ZMYND8

Function Chromatin reader that recognizes dual histone modifications such as histone H3.1 dimethylated at 'Lys-36' and histone H4 acetylated at 'Lys-16' (H3.1K36me2-H4K16ac) and histone H3 methylated at 'Lys-4' and histone H4 acetylated at 'Lys-14' (H3K4me1-H3K14ac) (PubMed:26655721, PubMed:27477906, PubMed:31965980, PubMed:36064715). May act as a transcriptional corepressor for KDM5D by recognizing the dual histone signature H3K4me1-H3K14ac (PubMed:27477906). May also act as a transcriptional corepressor for KDM5C and EZH2 (PubMed:33323928). Recognizes acetylated histone H4 and recruits the NuRD chromatin remodeling complex to damaged chromatin for transcriptional repression and double-strand break repair by homologous recombination (PubMed:25593309, PubMed:27732854, PubMed:30134174). Also activates

transcription elongation by RNA polymerase II through recruiting the P-TEFb complex to target promoters (PubMed:26655721, PubMed:30134174). Localizes to H3.1K36me2-H4K16ac marks at all-trans-retinoic acid (ATRA)-responsive genes and positively regulates their expression (PubMed:26655721). Promotes neuronal differentiation by associating with regulatory regions within the MAPT gene, to enhance transcription of a protein-coding MAPT isoform and suppress the non-coding MAPT213 isoform (PubMed:30134174, PubMed:35916866, PubMed:36064715). Suppresses breast cancer, and prostate cancer cell invasion and metastasis (PubMed:27477906, PubMed:31965980, PubMed:33323928).

Storage

Shipped at conditions	Blue Ice
Appropriate short-term storage conditions	+4°C
Appropriate long-term storage conditions	+4°C
Storage information	Do Not Freeze

Notes

ab232622 is the carrier-free version of ab201452.

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.

Conjugation ready

Our carrier-free antibodies are typically supplied in a PBS-only formulation, purified and free of BSA, sodium azide and glycerol. 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.

Compatibility

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.

Supplementary info

This supplementary information is collated from multiple sources and compiled automatically.

Activity summary	ZMYND8 also known by its alternate names such as RACK7 and PRKCBP1 acts as a transcriptional regulator that interacts with histone motifs. It functions as a chromatin reader with a molecular mass of approximately 135 kDa. ZMYND8 shows expression in various tissues and researchers have observed particularly high levels in the brain and kidneys. Its role centers on modulating gene expression by reading post-translational modifications on histone tails influencing gene silencing.
Biological function summary	In its role as a critical transcriptional regulator ZMYND8 participates in controlling the expression of genes involved in cellular differentiation and proliferation. ZMYND8 often associates with the NURD complex a multi-protein complex that functions in chromatin remodeling and transcription repression. As a member of this complex ZMYND8 contributes to the modulation of DNA accessibility affecting how transcription factors and other proteins engage with DNA.
Pathways	Researchers recognize ZMYND8's involvement in the DNA damage response pathway and the Wnt signaling pathway. It interacts with proteins such as BRCA1 an important player in genome stability within the DNA damage response pathway. In the context of Wnt signaling ZMYND8 modulates gene expression linked to cell fate decisions. Its role within these pathways highlights its importance in maintaining cellular function and response to cellular stress.
Associated diseases and disorders	Mutations or dysregulation of ZMYND8 have associations with certain cancers such as breast cancer and neurodevelopmental disorders. In breast cancer ZMYND8's ability to influence chromatin structure and gene expression often becomes compromised affecting cellular proliferation and tumor progression. Additionally it may interact with proteins like BRCA1 known for its role in breast cancer susceptibility. Regarding neurodevelopmental disorders altered ZMYND8 expression impacts normal brain development and function linking it with disorders that affect neural function and cognition.

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.

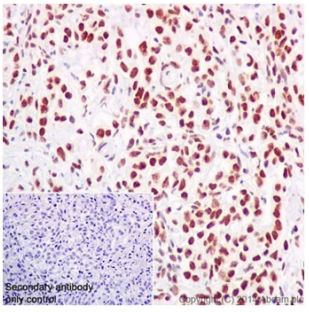
We are dedicated to supporting your work with high quality reagents and we are here for you every step of the way should you need us.

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.

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5 product images

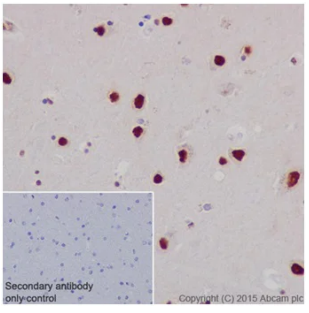


Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-ZMYND8 antibody [EPR16924] - BSA and Azide free (ab232622)

ZMYND8 Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining using rabbit Anti-ZMYND8 antibody

Immunohistochemical analysis of paraffin-embedded Human pancreas tissue labeling ZMYND8 using ab201452 at 1/500 dilution. A Goat Anti-Rabbit IgG H&L (HRP) (ab97051) was used as secondary at 1/500 dilution. Counterstain: Hematoxylin.
Inset image: negative control obtained using PBS instead of ab201452, and secondary antibody.
Note: Nuclear staining on Human pancreas tissue is observed.
This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (ab201452).

Heat mediated antigen retrieval was performed with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.

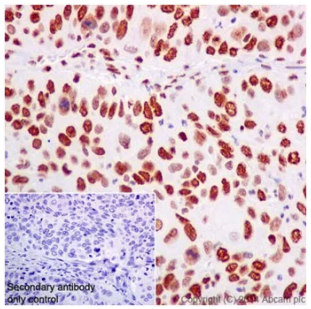


Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-ZMYND8 antibody [EPR16924] - BSA and Azide free (ab232622)

ZMYND8 Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining using rabbit Anti-ZMYND8 antibody

Immunohistochemical analysis of paraffin-embedded Human cerebral cortex tissue labeling ZMYND8 using ab201452 at 1/500 dilution. A Goat Anti-Rabbit IgG H&L (HRP) (ab97051) was used as secondary at 1/500 dilution. Counterstain: Hematoxylin.
Inset image: negative control obtained using PBS instead of ab201452, and secondary antibody.
Note: Nuclear staining on Human cerebral cortex tissue was observed.
This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (ab201452).

Heat mediated antigen retrieval was performed with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.

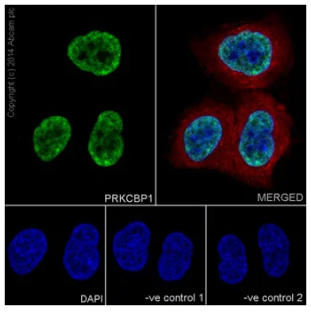


Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-ZMYND8 antibody [EPR16924] - BSA and Azide free (ab232622)

ZMYND8 Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining using rabbit Anti-ZMYND8 antibody

Immunohistochemical analysis of paraffin-embedded human cervix carcinoma tissue labeling ZMYND8 using ab201452 at 1/500 dilution. A Goat Anti-Rabbit IgG H&L (HRP) (ab97051) was used as secondary at 1/500 dilution. Counterstain: Hematoxylin.
Inset image: Negative control obtained using PBS instead of ab201452, and secondary antibody.
Note: Nuclear staining on human cervix carcinoma tissue is observed.
This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (ab201452).

Heat mediated antigen retrieval was performed with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.



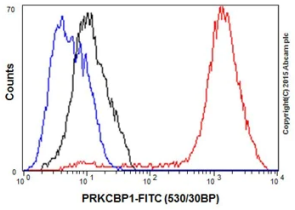
Immunocytochemistry/ Immunofluorescence - Anti-ZMYND8 antibody [EPR16924] - BSA and Azide free (ab232622)

ZMYND8 Immunocytochemistry/ Immunofluorescence staining using rabbit Anti-ZMYND8 antibody

Immunofluorescent analysis of 4% paraformaldehyde-fixed, 0.1% Triton X-100 permeabilized HEK293 (Human epithelial cells from embryonic kidney) cells labeling ZMYND8 with ab201452 at 1/500 dilution, followed by Goat anti-rabbit IgG (Alexa Fluor® 488) (ab150077) secondary antibody at 1/500 dilution (green).
Confocal image showing nuclear staining on HEK293 cell line.

The nuclear counter stain is DAPI (blue). Tubulin is detected with ab7291 (anti-Tubulin mouse mAb) at 1/1000 dilution and ab150120 (AlexaFluor®594 Goat anti-Mouse secondary) at 1/500 dilution (red).
The negative controls are as follows:
1. ab201452 at 1/500 dilution followed by ab150120 (AlexaFluor®594 Goat anti-Mouse secondary) at 1/500 dilution.
2. ab7291 (anti-Tubulin mouse mAb) at 1/1000 dilution followed by ab150077 (Alexa Fluor®488 Goat Anti-Rabbit IgG H&L) at 1/500 dilution.

This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (ab201452).



Flow Cytometry (Intracellular) - Anti-ZMYND8 antibody [EPR16924] - BSA and Azide free (ab232622)

ZMYND8 Flow Cytometry (Intracellular) staining using rabbit Anti-ZMYND8 antibody

Intracellular Flow Cytometry analysis of HEK293 (Human epithelial cells from embryonic kidney) cells labeling ZMYND8 using ab201452 at 1/150 dilution (Red). A Goat anti rabbit IgG (FITC) at 1/150 dilution was used as secondary antibody. Cells were fixed with 2% paraformaldehyde. Cells

without incubation with primary antibody and secondary antibody (Blue). Rabbit monoclonal IgG was used as isotype control (Black).
This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (ab201452).

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