

Product datasheet

Anti-PAX8 antibody [EPR18715] ab191870

Recombinant RabMAb

[7 References](#) [11 Images](#)

Overview

Product name	Anti-PAX8 antibody [EPR18715]
Description	Rabbit monoclonal [EPR18715] to PAX8
Host species	Rabbit
Tested applications	Suitable for: IHC-Fr, ChIC/CUT&RUN-seq, WB, IHC-P, ICC/IF
Species reactivity	Reacts with: Mouse, Human
Immunogen	Recombinant fragment. This information is proprietary to Abcam and/or its suppliers.
Positive control	WB: Human thyroid cancer lysate; Human fetal kidney lysate; NIH:OVCAR-3 and SK-OV-3 whole cell lysates. IHC-P: Human thyroid carcinoma and endometrium carcinoma tissues. ICC/IF: NIH:OVCAR-3 and SK-OV-3 cells.
General notes	<p>This product is a recombinant monoclonal antibody, which offers several advantages including:</p> <ul style="list-style-type: none"> - High batch-to-batch consistency and reproducibility - Improved sensitivity and specificity - Long-term security of supply - Animal-free production <p>For more information see here.</p> <p>Our RabMAb[®] technology is a patented hybridoma-based technology for making rabbit monoclonal antibodies. For details on our patents, please refer to RabMAb[®] patents.</p>

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.
Storage buffer	<p>pH: 7.2</p> <p>Preservative: 0.01% Sodium azide</p> <p>Constituents: 59% PBS, 40% Glycerol (glycerin, glycerine), 0.05% BSA</p>
Purity	Protein A purified
Clonality	Monoclonal
Clone number	EPR18715

Applications

The Abpromise guarantee

Our **Abpromise guarantee** covers the use of ab191870 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
IHC-Fr		1/500.
ChIC/CUT&RUN-seq		Use at an assay dependent concentration.
WB		1/1000. Detects a band of approximately 48 kDa (predicted molecular weight: 48 kDa).
IHC-P		1/1000. Perform heat mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.
ICC/IF		1/1000.

Target

Function

Transcription factor for the thyroid-specific expression of the genes exclusively expressed in the thyroid cell type, maintaining the functional differentiation of such cells.

Tissue specificity

Expressed in the excretory system, thyroid gland and Wilms tumors.

Involvement in disease

Defects in PAX8 are the cause of congenital hypothyroidism non-goitrous type 2 (CHNG2) [MIM:218700]. CHNG2 is a disease characterized by thyroid dysgenesis, the most frequent cause of congenital hypothyroidism, accounting for 85% of case. The thyroid gland can be completely absent (athyreosis), ectopically located and/or severely hypoplastic. Ectopic thyroid gland is the most frequent malformation, with thyroid tissue being found most often at the base of the tongue.

Sequence similarities

Contains 1 paired domain.

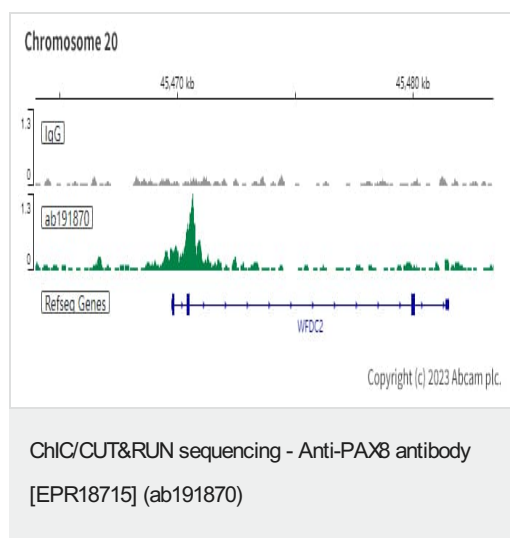
Developmental stage

In developing excretory system, during thyroid differentiation and in adult thyroid.

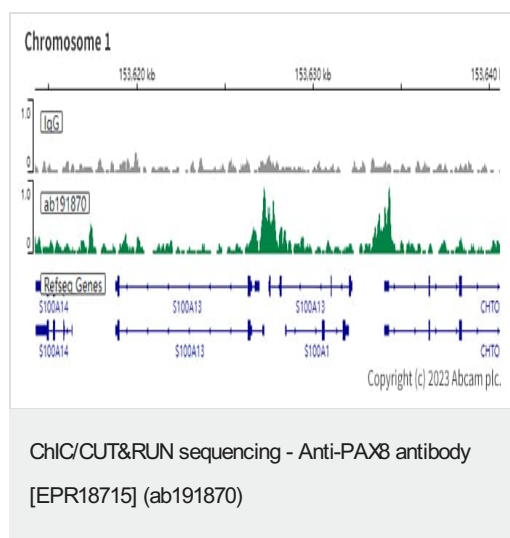
Cellular localization

Nucleus.

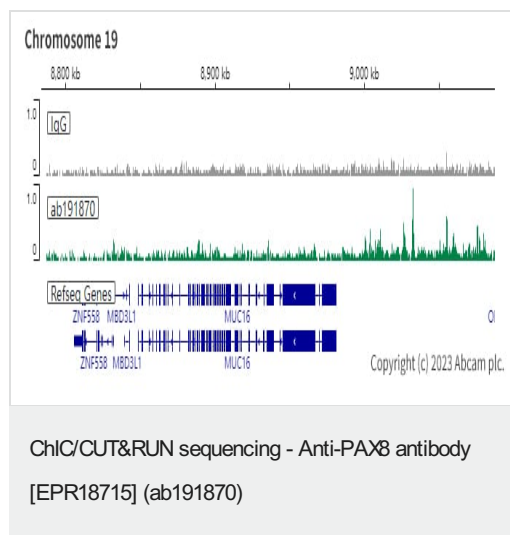
Images



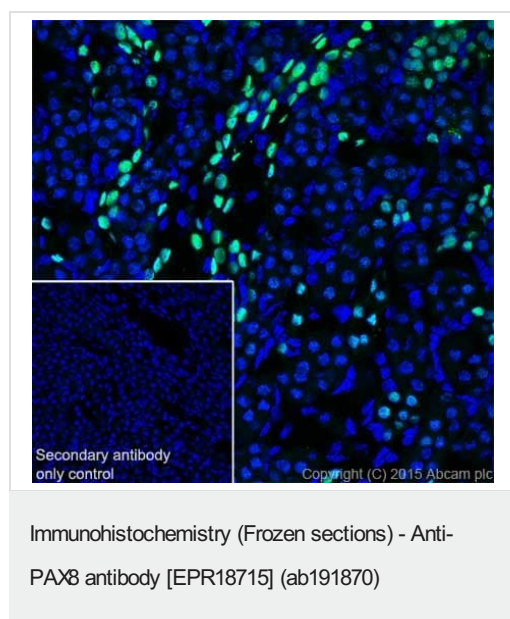
ChIC/CUT&RUN was performed using a pAG-MNase at a final concentration of 700 ng/μL, 2.5 x 10⁵ NIH:OVCAR-3 (Human ovary adenocarcinoma epithelial cell) cells and 5 μg of ab191870 [EPR18715]. The resulting DNA was sequenced on the Illumina NovaSeq 6000 to a depth of 10 million reads. The negative IgG control **ab172730** is also shown. The University of Geneva owns patents relevant to ChIC (Chromatin Immuno-Cleavage) methods.



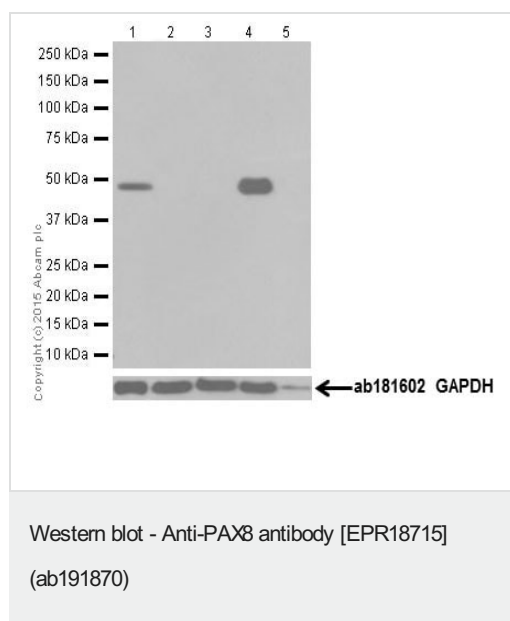
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Immunohistochemistry (Frozen sections) analysis of mouse kidney tissue labelling PAX8 with ab191870 at a dilution of 1/500. **ab150077**, an Alexa Fluor[®] 488-conjugated goat anti-rabbit IgG was used as the secondary antibody (1/1000). Nuclear staining is visible in the mouse kidney.



All lanes : Anti-PAX8 antibody [EPR18715] (ab191870) at 1/1000 dilution

Lane 1 : Human thyroid cancer lysate
Lane 2 : Human fetal liver lysate
Lane 3 : Human fetal heart lysate
Lane 4 : Human fetal kidney lysate
Lane 5 : Human fetal spleen lysate

Lysates/proteins at 10 μg per lane.

Secondary

All lanes : Anti-Rabbit IgG (HRP), specific to the non-reduced form of IgG at 1/10000 dilution

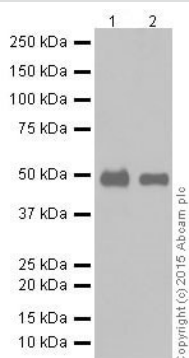
Predicted band size: 48 kDa

Observed band size: 48 kDa

Exposure time: 3 minutes

Blocking/Dilution buffer: 5% NFDM/TBST.

PAX8 is expressed in the excretory system and thyroid gland.
(PMID: 1723950, 9590297, 1069301)



Western blot - Anti-PAX8 antibody [EPR18715]
(ab191870)

All lanes : Anti-PAX8 antibody [EPR18715] (ab191870) at 1/1000 dilution

Lane 1 : NIH:OVCAR-3 (Human ovary adenocarcinoma cell line) whole cell lysate

Lane 2 : SK-OV-3 (Human ovarian cancer cell line) whole cell lysate

Lysates/proteins at 20 µg per lane.

Secondary

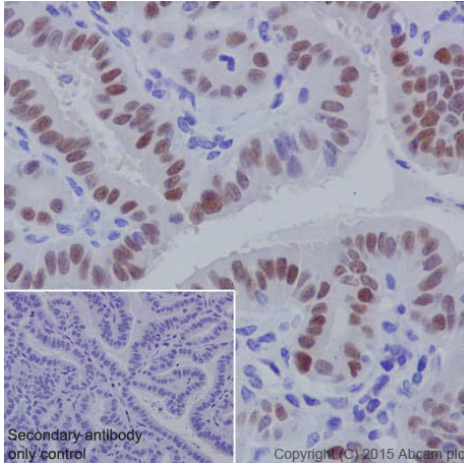
All lanes : Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated at 1/10000 dilution

Predicted band size: 48 kDa

Observed band size: 48 kDa

Exposure time: 3 minutes

Blocking/Dilution buffer: 5% NFDM/TBST.

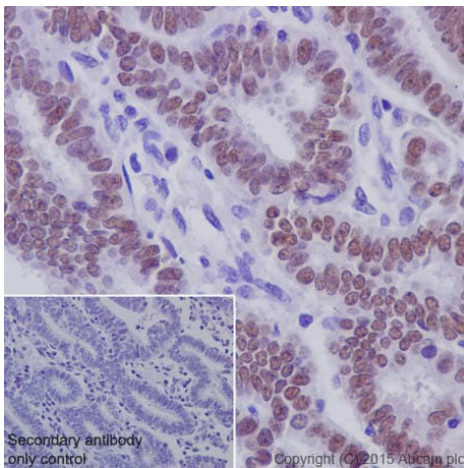


Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-PAX8 antibody
[EPR18715] (ab191870)

Immunohistochemical analysis of paraffin-embedded Human thyroid carcinoma tissue labeling PAX8 with ab191870 at 1/1000 dilution, followed by Goat Anti-Rabbit IgG H&L (HRP) ([ab97051](#)) at 1/500 dilution. Nucleus staining on tumor cells of thyroid carcinoma is observed. Counter stained with Hematoxylin.

Secondary antibody only control: Used PBS instead of primary antibody, secondary antibody is Goat Anti-Rabbit IgG H&L (HRP) ([ab97051](#)) at 1/500 dilution.

Perform heat mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.

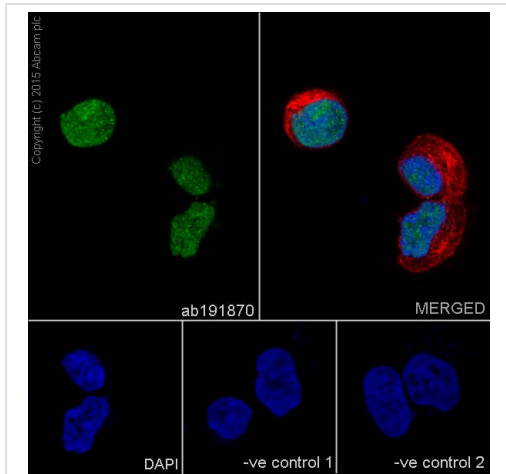


Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-PAX8 antibody
[EPR18715] (ab191870)

Immunohistochemical analysis of paraffin-embedded Human endometrium carcinoma tissue labeling PAX8 with ab191870 at 1/1000 dilution, followed by Goat Anti-Rabbit IgG H&L (HRP) ([ab97051](#)) at 1/500 dilution. Nucleus staining on tumor cells of the endometrium carcinoma is observed. Counter stained with Hematoxylin.

Secondary antibody only control: Used PBS instead of primary antibody, secondary antibody is Goat Anti-Rabbit IgG H&L (HRP) ([ab97051](#)) at 1/500 dilution.

Perform heat mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.

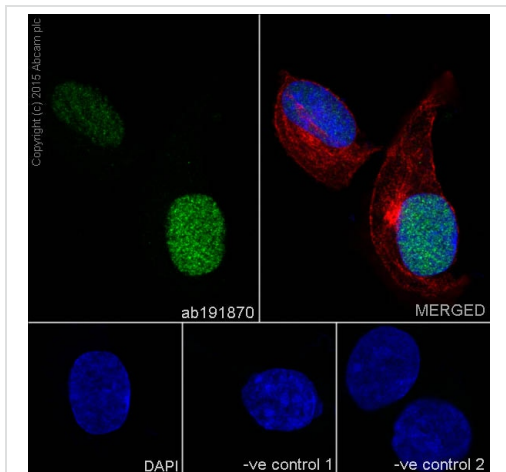


Immunocytochemistry/ Immunofluorescence - Anti-PAX8 antibody [EPR18715] (ab191870)

Immunofluorescent analysis of 4% paraformaldehyde-fixed, 0.1% Triton X-100 permeabilized NIH:OVCAR-3 (Human ovary adenocarcinoma cell line) cells labeling PAX8 with ab191870 at 1/1000 dilution, followed by Goat anti-rabbit IgG (Alexa Fluor® 488) (**ab150077**) secondary antibody at 1/1000 dilution (green). Confocal image showing nucleus staining on NIH:OVCAR-3 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 1/1000 dilution (red).

The negative controls are as follows:

-ve control 1: ab191870 at 1/1000 dilution followed by **ab150120** (AlexaFluor®594 Goat anti-Mouse secondary) at 1/1000 dilution.
-ve control 2: **ab7291** (anti-Tubulin mouse mAb) at 1/1000 dilution followed by **ab150077** (Alexa Fluor®488 Goat Anti-Rabbit IgG H&L) at 1/1000 dilution.



Immunocytochemistry/ Immunofluorescence - Anti-PAX8 antibody [EPR18715] (ab191870)

Immunofluorescent analysis of 4% paraformaldehyde-fixed, 0.1% Triton X-100 permeabilized SK-OV-3 (Human ovarian cancer cell line) cells labeling PAX8 with ab191870 at 1/1000 dilution, followed by Goat anti-rabbit IgG (Alexa Fluor® 488) (**ab150077**) secondary antibody at 1/1000 dilution (green). Confocal image showing nucleus staining on SK-OV-3 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 1/1000 dilution (red).

The negative controls are as follows:

-ve control 1: ab191870 at 1/1000 dilution followed by **ab150120** (AlexaFluor®594 Goat anti-Mouse secondary) at 1/1000 dilution.
-ve control 2: **ab7291** (anti-Tubulin mouse mAb) at 1/1000 dilution followed by **ab150077** (Alexa Fluor®488 Goat Anti-Rabbit IgG H&L) at 1/1000 dilution.

Why choose a recombinant antibody?



Research with confidence
Consistent and reproducible results



Long-term and scalable supply
Recombinant technology



Success from the first experiment
Confirmed specificity



Ethical standards compliant
Animal-free production

Anti-PAX8 antibody [EPR18715] (ab191870)

Please note: All products are "FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC PROCEDURES"

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