## Product datasheet

### Anti-PAX8 antibody [EPR18715] ab191870

#### Overview

<table>
<thead>
<tr>
<th><strong>Product name</strong></th>
<th>Anti-PAX8 antibody [EPR18715]</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Description</strong></td>
<td>Rabbit monoclonal [EPR18715] to PAX8</td>
</tr>
<tr>
<td><strong>Host species</strong></td>
<td>Rabbit</td>
</tr>
<tr>
<td><strong>Tested applications</strong></td>
<td>Suitable for: IHC-Fr, WB, IHC-P, ICC/IF</td>
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<tr>
<td><strong>Species reactivity</strong></td>
<td>Reacts with: Human</td>
</tr>
<tr>
<td><strong>Immunogen</strong></td>
<td>Recombinant fragment within Human PAX8 aa 100 to the C-terminus. The exact sequence is proprietary. Database link: Q06710</td>
</tr>
<tr>
<td><strong>General notes</strong></td>
<td>Our RabMab® technology is a patented hybridoma-based technology for making rabbit monoclonal antibodies. For details on our patents, please refer to RabMab® patents. This product is a recombinant rabbit monoclonal antibody.</td>
</tr>
</tbody>
</table>

#### Properties

<table>
<thead>
<tr>
<th><strong>Form</strong></th>
<th>Liquid</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Storage instructions</strong></td>
<td>Shipped at 4°C. Store at +4°C short term (1-2 weeks). Upon delivery aliquot. Store at -20°C. Avoid freeze / thaw cycle.</td>
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<tr>
<td><strong>Storage buffer</strong></td>
<td>Preservative: 0.01% Sodium azide Constituents: 59% PBS, 40% Glycerol, 0.05% BSA</td>
</tr>
<tr>
<td><strong>Purity</strong></td>
<td>Protein A purified</td>
</tr>
<tr>
<td><strong>Clonality</strong></td>
<td>Monoclonal</td>
</tr>
<tr>
<td><strong>Clone number</strong></td>
<td>EPR18715</td>
</tr>
<tr>
<td><strong>Isotype</strong></td>
<td>IgG</td>
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</table>

#### Applications
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.

<table>
<thead>
<tr>
<th>Application</th>
<th>Abviews</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>IHC-Fr</td>
<td>1/500.</td>
<td></td>
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<tr>
<td>WB</td>
<td>1/1000. Detects a band of approximately 48 kDa (predicted molecular weight: 48 kDa).</td>
<td></td>
</tr>
<tr>
<td>IHC-P</td>
<td>1/1000. Perform heat mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.</td>
<td></td>
</tr>
<tr>
<td>ICC/IF</td>
<td>1/1000.</td>
<td></td>
</tr>
</tbody>
</table>

**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**

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

*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)

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**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.

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.

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.
**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.

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**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.

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