

## Product datasheet

### Anti-PAX8 antibody [EPR13510] $\alpha$ b181054

Recombinant **RabMAb**

[1 References](#) [8 Images](#)

#### Overview

<b>Product name</b>	Anti-PAX8 antibody [EPR13510]
<b>Description</b>	Rabbit monoclonal [EPR13510] to PAX8
<b>Host species</b>	Rabbit
<b>Tested applications</b>	<b>Suitable for:</b> ChIC/CUT&RUN-seq, WB, IHC-P
<b>Species reactivity</b>	<b>Reacts with:</b> Human
<b>Immunogen</b>	Recombinant fragment. This information is proprietary to Abcam and/or its suppliers.
<b>Positive control</b>	WB: SK-OV-3 whole cell lysate. Human kidney, heart, and thyroid tissue lysates; IHC-P: Human ovarian carcinoma and thyroid gland tissues.
<b>General notes</b>	<p>This product is a recombinant monoclonal antibody, which offers several advantages including:</p> <ul style="list-style-type: none"> <li>- High batch-to-batch consistency and reproducibility</li> <li>- Improved sensitivity and specificity</li> <li>- Long-term security of supply</li> <li>- Animal-free production</li> </ul> <p>For more information <a href="#">see here</a>.</p> <p>Our RabMAb<sup>®</sup> technology is a patented hybridoma-based technology for making rabbit monoclonal antibodies. For details on our patents, please refer to <a href="#">RabMAb<sup>®</sup> patents</a>.</p>

#### Properties

<b>Form</b>	Liquid
<b>Storage instructions</b>	Shipped at 4°C. Store at +4°C short term (1-2 weeks). Upon delivery aliquot. Store at -20°C long term. Avoid freeze / thaw cycle.
<b>Storage buffer</b>	Preservative: 0.01% Sodium azide Constituents: 40% Glycerol, 0.05% BSA, 59% PBS
<b>Purity</b>	Protein A purified
<b>Clonality</b>	Monoclonal
<b>Clone number</b>	EPR13510
<b>Isotype</b>	IgG

## Applications

### The Abpromise guarantee

Our **Abpromise guarantee** covers the use of ab181054 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
ChIC/CUT&RUN-seq		Use at an assay dependent concentration.
WB		1/1000. Detects a band of approximately 30, 50 kDa (predicted molecular weight: 48 kDa).
IHC-P		1/250 - 1/1000. Perform heat mediated antigen retrieval before commencing with IHC staining protocol. See <b><u>IHC antigen retrieval protocols</u></b> .

## 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.

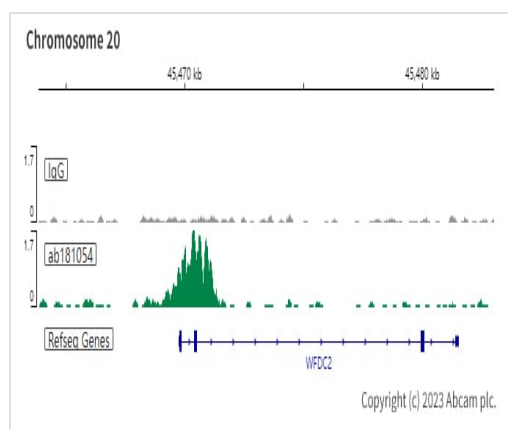
### Developmental stage

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

### Cellular localization

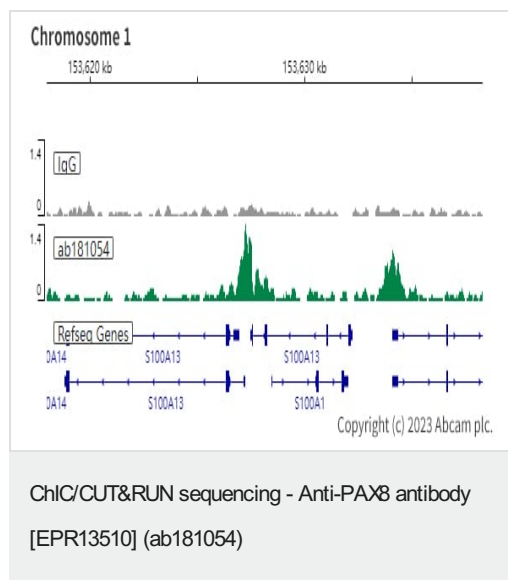
Nucleus.

## Images

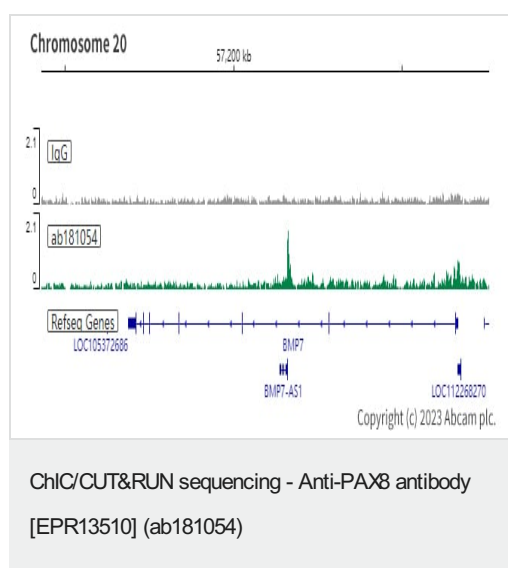


ChIC/CUT&RUN sequencing - Anti-PAX8 antibody  
[EPR13510] (ab181054)

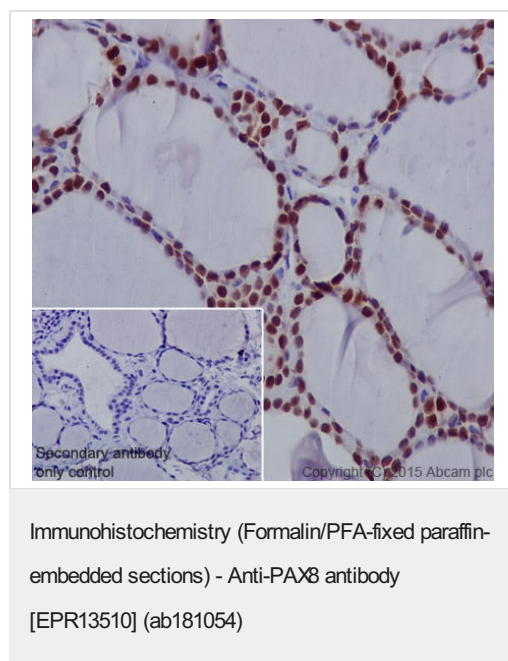
ChIC/CUT&RUN was performed using a pAG-MNase at a final concentration of 700 ng/ $\mu$ L,  $2.5 \times 10^5$  NIH:OVCAR-3 (Human ovary adenocarcinoma epithelial cell) cells and 5  $\mu$ g of ab181054 [EPR13510]. The resulting DNA was sequenced on the Illumina NovaSeq 6000 to a depth of 10 million reads. The negative IgG control **ab172730** is also shown. The University of Geneva owns patents relevant to ChIC (Chromatin Immuno-Cleavage) methods.



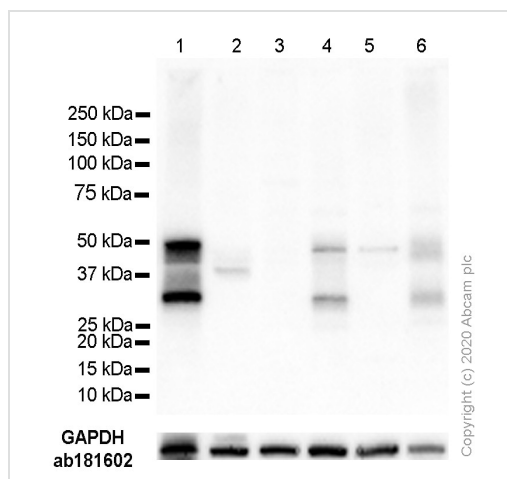
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Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) analysis of human thyroid tissue labelling PAX8 with purified ab181054 at a dilution of 1/1000. Heat mediated antigen retrieval was performed using Tris/EDTA buffer pH 9. **ab97051**, a HRP-conjugated goat anti-rabbit IgG (H+L) was used as the secondary antibody (1/500). Negative control using PBS instead of primary antibody. Counterstained with hematoxylin.



Western blot - Anti-PAX8 antibody [EPR13510]  
(ab181054)

**All lanes :** Anti-PAX8 antibody [EPR13510] (ab181054) at 1/1000 dilution

**Lane 1 :** SK-OV-3 (Human ovarian cancer epithelial cell) cell lysate

**Lane 2 :** TT (Human thyroid carcinoma epithelial cell) cell lysate

**Lane 3 :** 293T (Human embryonic kidney epithelial cell) cell lysate

**Lane 4 :** Human kidney lysate

**Lane 5 :** Human heart lysate

**Lane 6 :** Human thyroid lysate

Lysates/proteins at 10 µg per lane.

## Secondary

**All lanes :** Goat Anti-Rabbit IgG H&L (HRP) ([ab97051](#)) at 1/20000 dilution

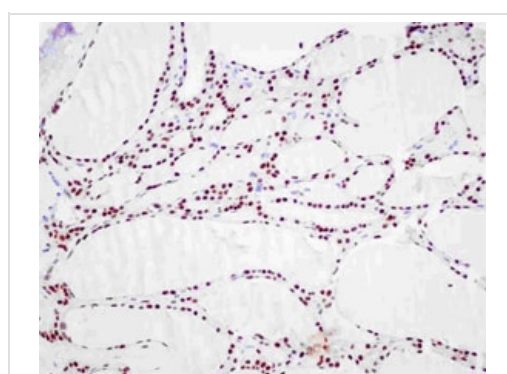
**Predicted band size:** 48 kDa

**Observed band size:** 30, 50 kDa

**Exposure time:** 7 seconds

**Blocking/Diluting buffer:** 5% NFDM/TBST

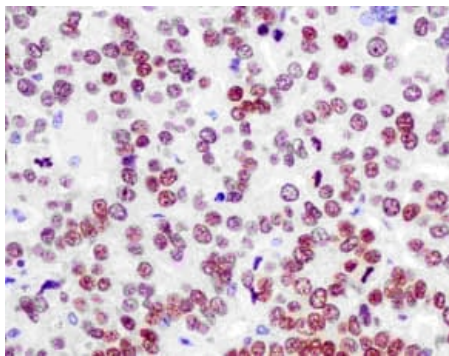
**Loading Control:** Rabbit monoclonal [EPR16891] to GAPDH ([ab181602](#))



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-PAX8 antibody  
[EPR13510] (ab181054)

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) analysis of human thyroid tissue labelling PAX8 with unpurified ab181054 at a dilution of 1/500 followed by incubation with a pre-diluted HRP-conjugated secondary antibody and counter-staining with Hematoxylin.

Perform heat mediated antigen retrieval before commencing with IHC staining protocol.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-PAX8 antibody [EPR13510] (ab181054)

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) analysis of human ovarian carcinoma tissue labelling PAX8 with unpurified ab181054 at a dilution of 1/500 followed by incubation with a pre-diluted HRP-conjugated secondary antibody and counter-staining with Hematoxylin.

Perform heat mediated antigen retrieval before commencing with IHC staining protocol.

#### 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 [EPR13510] (ab181054)

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

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