Product name: Anti-PAX8 antibody [SP348] - N-terminal

Description: Rabbit monoclonal [SP348] to PAX8 - N-terminal

Host species: Rabbit

Tested applications: Suitable for: ICC/IF, Flow Cyt, IHC-P, WB

Species reactivity: Reacts with: Human
Predicted to work with: Mouse, Rat, Dog

Immunogen: Synthetic peptide corresponding to Human PAX8 (N terminal).
Database link: Q06710


Properties

Form: Liquid
Storage buffer: pH: 7.6
Preservative: 0.1% Sodium azide
 Constituents: PBS, 1% BSA
Purity: Immunogen affinity purified
Purification notes: Purified from TCS by protein A/G.
Clonality: Monoclonal
Clone number: SP348
Isotype: IgG

Applications

Our Abpromise guarantee covers the use of ab227707 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>Abreviews</th>
<th>Notes</th>
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</thead>
<tbody>
<tr>
<td>ICC/IF</td>
<td></td>
<td>Use at an assay dependent concentration.</td>
</tr>
<tr>
<td>Flow Cyt</td>
<td>1/100.</td>
<td>Primary antibody incubation for 30 minutes at 4°C.</td>
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<tr>
<td>IHC-P</td>
<td>1/100.</td>
<td>Perform heat mediated antigen retrieval with EDTA buffer pH 8.0 before commencing with IHC staining protocol. Primary antibody incubation for 10 minutes at room temperature.</td>
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<tr>
<td>WB</td>
<td>1/100.</td>
<td>Predicted molecular weight: 48 kDa. Primary antibody incubation for 1 hour at room temperature.</td>
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**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**
Immunocytochemistry/ Immunofluorescence analysis of SK-OV-3 (human ovarian cancer epithelial cell) cells labeling PAX8 with purified ab227707 at 1:50 (8.1 µg/ml). Cells were fixed in 4% paraformaldehyde and permeabilized with 0.1% Triton X-100. Cells were counterstained with Ab195889 Anti-alpha Tubulin antibody [DM1A] - Microtubule Marker (Alexa Fluor® 594) 1:200 (2.5 µg/ml). Goat anti rabbit IgG (Alexa Fluor® 488, ab150077) was used as the secondary antibody at 1:1000 (2 µg/ml) dilution. DAPI nuclear counterstain. PBS instead of the primary antibody was used as the secondary antibody only control.

**All lanes**: Anti-PAX8 antibody [SP348] - N-terminal (ab227707) at 0.398 µg/ml

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

**Lane 2**: human kidney tissue lysate

Lysates/proteins at 20 µg per lane.

**Secondary**

**All lanes**: Goat Anti-Rabbit IgG H&L (HRP) (ab97051) at 0.05 µg/ml

**Predicted band size**: 48 kDa

Flow Cytometry analysis of SK-OV-3 (human ovarian cancer epithelial cell) cells labeling PAX8 with purified ab227707 at 1:400 dilution (1.015 µg/ml) - Red. Cells were fixed with 4% paraformaldehyde. A Goat anti rabbit IgG (Alexa Fluor® 488, ab150081) secondary antibody was used at 1:2000 dilution. Isotype control - Rabbit monoclonal IgG (ab172730) - Black. Unlabeled control - Blue.
Formalin-fixed, paraffin-embedded human renal cell carcinoma tissue stained for PAX8 using ab227707 at 1/100 dilution in immunohistochemical analysis.

**All lanes**: Anti-PAX8 antibody [SP348] - N-terminal (ab227707) at 1/100 dilution

- **Lane 1**: PAX1 transfected HEK-293 (human epithelial cell line from embryonic kidney) cell lysate
- **Lane 2**: PAX2 transfected HEK-293 (human epithelial cell line from embryonic kidney) cell lysate
- **Lane 3**: PAX3 transfected HEK-293 (human epithelial cell line from embryonic kidney) cell lysate
- **Lane 4**: PAX4 transfected HEK-293 (human epithelial cell line from embryonic kidney) cell lysate
- **Lane 5**: PAX5 transfected HEK-293 (human epithelial cell line from embryonic kidney) cell lysate
- **Lane 6**: PAX6 transfected HEK-293 (human epithelial cell line from embryonic kidney) cell lysate
- **Lane 7**: PAX7 transfected HEK-293 (human epithelial cell line from embryonic kidney) cell lysate
- **Lane 8**: PAX8 transfected HEK-293 (human epithelial cell line from embryonic kidney) cell lysate
- **Lane 9**: PAX9 transfected HEK-293 (human epithelial cell line from embryonic kidney) cell lysate
- **Lane 10**: Mock transfected HEK-293 (human epithelial cell line from embryonic kidney) cell lysate

**Predicted band size**: 48 kDa
Flow Cytometry analysis of HL-60 (human promyelocytic leukemia cell line) cells, labeling PAX8 with ab227707 at 1/100 dilution (green) compared to a Rabbit IgG negative control (blue).

Formalin-fixed, paraffin-embedded human kidney tissue stained for PAX8 using ab227707 at 1/100 dilution in immunohistochemical analysis.
Formalin-fixed, paraffin-embedded human ovarian adenocarcinoma tissue stained for PAX8 using ab227707 at 1/100 dilution in immunohistochemical analysis.

Formalin-fixed, paraffin-embedded human uterus tissue stained for PAX8 using ab227707 at 1/100 dilution in immunohistochemical analysis.
Formalin-fixed, paraffin-embedded human endometrial adenocarcinoma tissue stained for PAX8 using ab227707 at 1/100 dilution in immunohistochemical analysis.

Formalin-fixed, paraffin-embedded human thyroid tissue stained for PAX8 using ab227707 at 1/100 dilution in immunohistochemical analysis.
Formalin-fixed, paraffin-embedded human fallopian tube tissue stained for PAX8 using ab227707 at 1/100 dilution in immunohistochemical analysis.

Formalin-fixed, paraffin-embedded human tonsil tissue stained for PAX8 using ab227707 at 1/100 dilution in immunohistochemical analysis.

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