Anti-PAX8 Antibody [JE80-01]

HA720112



Product Type:	Recombinant Rabbit monoclonal IgG, primary antibodies
Species reactivity:	Human, Mouse
Applications:	WB, IHC-P, IF-Cell
Molecular Wt:	Predicted band size: 48 kDa
Clone number:	JE80-01
Description:	PAX8 is a transcription factor crucial to the organogenesis and development of the thyroid gland, urogenital tract, placenta and inner ear. In the thyroid, PAX8 is a master gene that regulates maintenance of the differentiated thyroid follicular cell phenotype, where it controls and activates the transcription of the main proteins responsible for the functional activity of follicular cells such as thyroglobulin, thyroperoxidase and sodium/iodide symporter. In the developing kidney PAX8 is important for renal vescicle formation. PAX8 regulates the expression of the WT1 gene. PAX8 appears to be currently the most sensitive and specific marker for renal cell carcinoma and ovarian non-mucinous carcinoma. Nuclear transcriptional regulator in the paired-box family expressed during organogenesis of the thyroid gland, kidney, and Müllerian tract. Chromosomal localization 2q13, Molecular weight of the unprocessed precursor 48 kDa, of five isoforms 31-42 kDa.
Immunogen:	Recombinant protein within Human PAX8 aa 120-450.
Positive control:	SKOV-3 cell lysates, human thyroid tissue, human kidney tissue, human thyroid carcinoma tissue, human ovary carcinoma tissue, human renal clear cell carcinoma tissue, mouse thyroid tissue, SKOV-3.
Subcellular location:	Nudeus.
Database links:	SwissProt Q06710 Human Q00288 Mouse
Recommended Dilutions: WB IHC-P IF-Cell	1:1,000 1:500-1:5,000 1:100
Storage Buffer:	1*TBS (pH7.4), 0.05% BSA, 40% Glycerol. Preservative: 0.05% SodiumAzide.
Storage Instruction:	Store at +4 $^\circ\!\!\mathbb{C}$ after thawing. Aliquot store at -20 $^\circ\!\!\mathbb{C}$. Avoid repeated freeze / thaw cycles.
Purity:	Protein A affinity purified.

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Images

kDa______X 250-150-100-75-50-37Fig1: Western blot analysis of PAX8 on SKOV-3 cell lysates with Rabbit anti-PAX8 antibody (HA720112) at 1/1,000 dilution.

Lysates/proteins at 10 µg/Lane.

Predicted band size: 48 kDa Observed band size: 48 kDa

Exposure time: 2 minutes;

8% SDS-PAGE gel.

Proteins were transferred to a PVDF membrane and blocked with 5% NFDM/TBST for 1 hour at room temperature. The primary antibody (HA720112) at 1/1,000 dilution was used in 5% NFDM/TBST at room temperature for 2 hours. Goat Anti-Rabbit IgG - HRP Secondary Antibody (HA1001) at 1:300,000 dilution was used for 1 hour at room temperature.

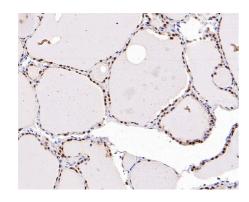


Fig2: Immunohistochemical analysis of paraffin-embedded human thyroid tissue with Rabbit anti-PAX8 antibody (HA720112) at 1/5,000 dilution.

The section was pre-treated using heat mediated antigen retrieval with sodium citrate buffer (pH 6.0) for 2 minutes. The tissues were blocked in 1% BSA for 20 minutes at room temperature, washed with ddH₂O and PBS, and then probed with the primary antibody (HA720112) at 1/5,000 dilution for 1 hour at room temperature. The detection was performed using an HRP conjugated compact polymer system. DAB was used as the chromogen. Tissues were counterstained with hematoxylin and mounted with DPX.

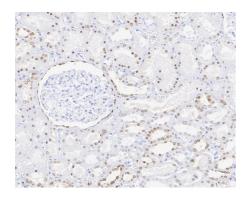


Fig3: Immunohistochemical analysis of paraffin-embedded human kidney tissue with Rabbit anti-PAX8 antibody (HA720112) at 1/2,000 dilution.

The section was pre-treated using heat mediated antigen retrieval with sodium citrate buffer (pH 6.0) for 2 minutes. The tissues were blocked in 1% BSA for 20 minutes at room temperature, washed with ddH₂O and PBS, and then probed with the primary antibody (HA720112) at 1/2,000 dilution for 1 hour at room temperature. The detection was performed using an HRP conjugated compact polymer system. DAB was used as the chromogen. Tissues were counterstained with hematoxylin and mounted with DPX.

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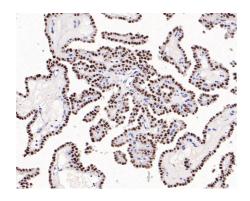


Fig4: Immunohistochemical analysis of paraffin-embedded human thyroid carcinoma tissue with Rabbit anti-PAX8 antibody (HA720112) at 1/5,000 dilution.

The section was pre-treated using heat mediated antigen retrieval with sodium citrate buffer (pH 6.0) for 2 minutes. The tissues were blocked in 1% BSA for 20 minutes at room temperature, washed with ddH₂O and PBS, and then probed with the primary antibody (HA720112) at 1/5,000 dilution for 1 hour at room temperature. The detection was performed using an HRP conjugated compact polymer system. DAB was used as the chromogen. Tissues were counterstained with hematoxylin and mounted with DPX.

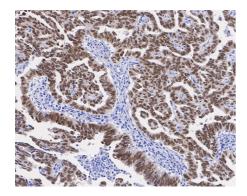


Fig5: Immunohistochemical analysis of paraffin-embedded human ovary carcinoma tissue with Rabbit anti-PAX8 antibody (HA720112) at 1/1,000 dilution.

The section was pre-treated using heat mediated antigen retrieval with sodium citrate buffer (pH 6.0) for 2 minutes. The tissues were blocked in 1% BSA for 20 minutes at room temperature, washed with ddH₂O and PBS, and then probed with the primary antibody (HA720112) at 1/1,000 dilution for 1 hour at room temperature. The detection was performed using an HRP conjugated compact polymer system. DAB was used as the chromogen. Tissues were counterstained with hematoxylin and mounted with DPX.

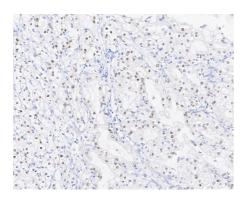


Fig6: Immunohistochemical analysis of paraffin-embedded human renal clear cell carcinoma tissue with Rabbit anti-PAX8 antibody (HA720112) at 1/500 dilution.

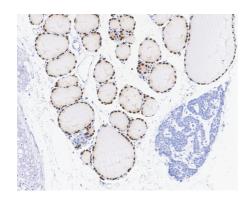
The section was pre-treated using heat mediated antigen retrieval with sodium citrate buffer (pH 6.0) for 2 minutes. The tissues were blocked in 1% BSA for 20 minutes at room temperature, washed with ddH₂O and PBS, and then probed with the primary antibody (HA720112) at 1/500 dilution for 1 hour at room temperature. The detection was performed using an HRP conjugated compact polymer system. DAB was used as the chromogen. Tissues were counterstained with hematoxylin and mounted with DPX.

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PAX8 DAPI Secondary antibody only Merged **Fig7:** Immunohistochemical analysis of paraffin-embedded mouse thyroid tissue with Rabbit anti-PAX8 antibody (HA720112) at 1/2,000 dilution.

The section was pre-treated using heat mediated antigen retrieval with sodium citrate buffer (pH 6.0) for 2 minutes. The tissues were blocked in 1% BSA for 20 minutes at room temperature, washed with ddH₂O and PBS, and then probed with the primary antibody (HA720112) at 1/2,000 dilution for 1 hour at room temperature. The detection was performed using an HRP conjugated compact polymer system. DAB was used as the chromogen. Tissues were counterstained with hematoxylin and mounted with DPX.

Fig8: Immunocytochemistry analysis of SKOV-3 cells labeling PAX8 with Rabbit anti-PAX8 antibody (HA720112) at 1/100 dilution.

Cells were fixed in 4% paraformaldehyde for 10 minutes at 37 °C, permeabilized with 0.05% Triton X-100 in PBS for 20 minutes, and then blocked with 2% negative goat serum for 30 minutes at room temperature. Cells were then incubated with Rabbit anti-PAX8 antibody (HA720112) at 1/100 dilution in 2% negative goat serum overnight at 4 °C. Goat Anti-Rabbit IgG H&L (iFluor™ 488, HA1121) was used as the secondary antibody at 1/1,000 dilution. PBS instead of the primary antibody was used as the secondary antibody only control. Nuclear DNA was labelled in blue with DAPI.

Note: All products are "FOR RESEARCH USE ONLY AND ARE NOT INTENDED FOR DIAGNOSTIC OR THERAPEUTIC USE".

Background References

- 1. Wang M et al. PAX2 and PAX8 reliably distinguishes ovarian serous tumors from mucinous tumors. Appl Immunohistochem Mol Morphol 23:280-7 (2015).
- 2. Sicking EM et al. Subtotal ablation of parietal epithelial cells induces crescent formation. J Am Soc Nephrol 23:629-40 (2012).

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