Anti-PAX8 Antibody [JJ08-88]

ET1701-50

Product Type:	Recombinant Rabbit monoclonal IgG, primary antibodies
Species reactivity:	Human
Applications:	WB, IF-Cell, IF-Tissue, IHC-P
Molecular Wt:	Predicted band size: 48 kDa
Clone number:	JJ08-88

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. Follicular and papillary thyroid carcinoma are virually always PAX8 positive (while anaplastic carcinoma is positive in most cases and medullary thyroid carcinoma negative). PAX8 is also found in almost all cases of ovarian serous, endometrioid, transitional and clear cell carcinoma (while mucinous carcinoma is positive in a minor number of cases), and endometrial carcinoma.

Immunogen: Recombinant protein within Human PAX8 aa 101-450 / 450.

Positive control: SKOV-3 cell lysates, SKOV-3, human thyroid tissue, human ovarian carcinoma tissue, human thyroid cancer tissue, human kidney tissue.

Subcellular location: Nucleus.

Database links: SwissProt: Q06710 Human

Recommended Dilutions:

WB	1:500-1:2,000
IF-Cell	1:50-1:200
IF-Tissue	1:50-1:200
IHC-P	1:50-1:500

Storage Buffer: 1*TBS (pH7.4), 0.05% BSA, 40% Glycerol. Preservative: 0.05% Sodium Azide.

Storage Instruction: Store at +4℃ after thawing. Aliquot store at -20℃ or -80℃. Avoid repeated freeze / thaw cycles.

Purity: Protein A affinity purified.

Images

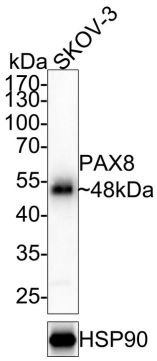

Fig1: Western blot analysis of PAX8 on SKOV-3 cell lysates with Rabbit anti-PAX8 antibody (ET1701-50) at 1/1,000 dilution.

Lysates/proteins at 10 µg/Lane.

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

Exposure time: 20 seconds;

10% 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 (ET1701-50) 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 1:100,000 dilution was used for 1 hour at room temperature.

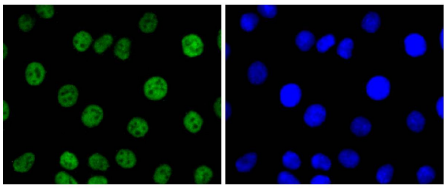

Fig2: ICC staining of PAX8 in SKOV-3 cells (green). Formalin fixed cells were permeabilized with 0.1% Triton X-100 in TBS for 10 minutes at room temperature and blocked with 10% negative goat serum for 15 minutes at room temperature. Cells were probed with the primary antibody (ET1701-50, 1/50) for 1 hour at room temperature, washed with PBS. Alexa Fluor®488 conjugate-Goat anti-Rabbit IgG was used as the secondary antibody at 1/1,000 dilution. The nuclear counter stain is DAPI (blue).

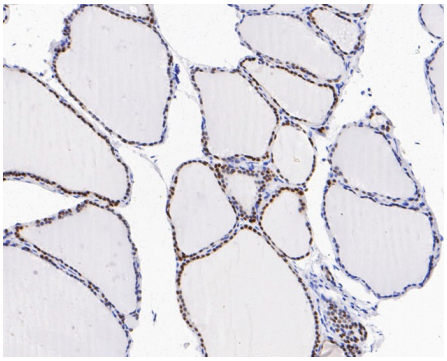

Fig3: Immunohistochemical analysis of paraffin-embedded human thyroid tissue using anti-PAX8 antibody. The section was pre-treated using heat mediated antigen retrieval with sodium citrate buffer (pH 6.0) for 20 minutes. The tissues were blocked in 5% BSA for 30 minutes at room temperature, washed with ddH_2O and PBS, and then probed with the primary antibody (ET1701-50, 1/200) for 30 minutes 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.

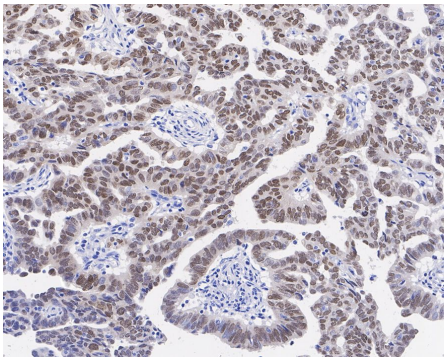

Fig4: Immunohistochemical analysis of paraffin-embedded human ovarian carcinoma tissue with Rabbit anti-PAX8 antibody (ET1701-50) at 1/500 dilution.

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 ddH_2O and PBS, and then probed with the primary antibody (ET1701-50) 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.

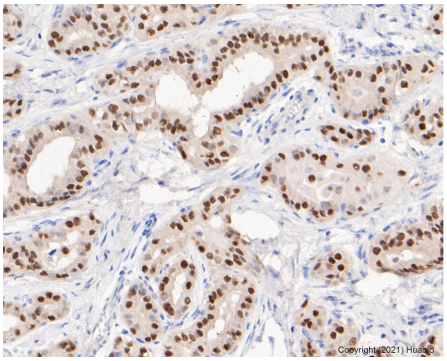

Fig5: Immunohistochemical analysis of paraffin-embedded human thyroid cancer tissue using anti-PAX8 antibody. The section was pre-treated using heat mediated antigen retrieval with sodium citrate buffer (pH 6.0) for 20 minutes. The tissues were blocked in 5% BSA for 30 minutes at room temperature, washed with ddH_2O and PBS, and then probed with the primary antibody (ET1701-50, 1/50) for 30 minutes 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.

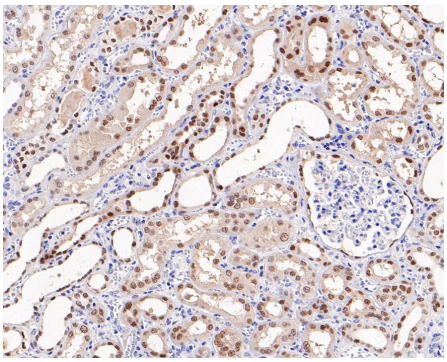

Fig6: Immunohistochemical analysis of paraffin-embedded human kidney tissue with Rabbit anti-PAX8 antibody (ET1701-50) at 1/2,000 dilution.

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 ddH_2O and PBS, and then probed with the primary antibody (ET1701-50) 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.

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).