Anti-PAX8 Antibody [6G5-R]

HA601270

Product Type:	Recombinant Mouse monoclonal IgG1, primary antibodies
Species reactivity:	Human, Mouse, Monkey
Applications:	WB, IHC-P, IF-Cell
Molecular Wt:	Predicted band size: 48 kDa
Clone number:	6G5-R

Description: The PAX gene family has an important role in the formation of tissues and organs during embryonic development and maintaining the normal function of some cells after birth. The PAX genes give instructions for making proteins that attach themselves to certain areas of DNA. This nuclear protein is involved in thyroid follicular cell development and expression of thyroid-specific genes. PAX8 releases the hormones important for regulating growth, brain development, and metabolism. Also functions in very early stages of kidney organogenesis, the müllerian system, and the thymus. Additionally, PAX8 is expressed in the renal excretory system, epithelial cells of the endocervix, endometrium, ovary, Fallopian tube, seminal vesicle, epididymis, pancreatic islet cells and lymphoid cells. PAX8 and other transcription factors play a role in binding to DNA and regulating the genes that drive thyroid hormone synthesis (Tg, TPO, Slc5a5 and Tshr). This PAX-8 antibody is intended for qualified laboratories to qualitatively identify by light microscopy the presence of associated antigens in sections of formalinfixed, paraffin-embedded tissue sections using IHC test methods.

Immunogen: Synthetic peptide corresponding to human PAX8 aa 400-450.

Positive control: NIH:OVCAR-3 cell lysate, COS-1 cell lysate, human kidney tissue, human thyroid cancer tissue, human thyroid tissue, human renal clear cell carcinoma tissue, mouse thyroid tissue, NIH:OVCAR-3.

Subcellular location: Nucleus.

Database links: SwissProt: Q06710 Human | Q00288 Mouse

Recommended Dilutions:

WB	1:1,000
IHC-P	1:500-1:2,000
IF-Cell	1:100

Storage Buffer: PBS (pH7.4), 0.1% BSA, 40% Glycerol. Preservative: 0.05% Sodium Azide.

Storage Instruction: Shipped at 4℃. Store at +4℃ short term (1-2 weeks). It is recommended to aliquot into single-use upon delivery. Store at -20℃ long term.

Purity: Protein A affinity purified.

Images

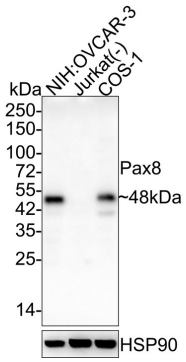

Fig1: Western blot analysis of PAX8 on different lysates with Mouse anti-PAX8 antibody (HA601270) at 1/1,000 dilution.

Lane 1: NIH:OVCAR-3 cell lysate
Lane 2: Jurkat cell lysate (negative)
Lane 3: COS-1 cell lysate

Lysates/proteins at 20 µg/Lane.

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

Exposure time: 1 minute 40 seconds;

4-20% 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 (HA601270) at 1/1,000 dilution was used in 5% NFDM/TBST at 4℃ overnight. Goat Anti-Mouse IgG - HRP Secondary Antibody (HA1006) at 1/50,000 dilution was used for 1 hour at room temperature.

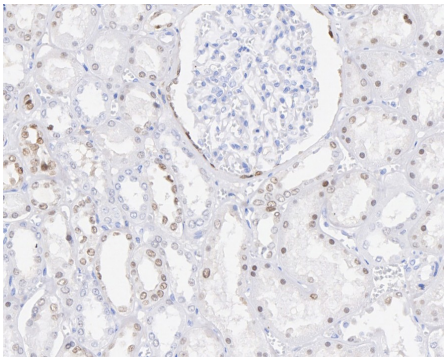

Fig2: Immunohistochemical analysis of paraffin-embedded human kidney tissue with Mouse anti-PAX8 antibody (HA601270) at 1/2,000 dilution.

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 (HA601270) 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.

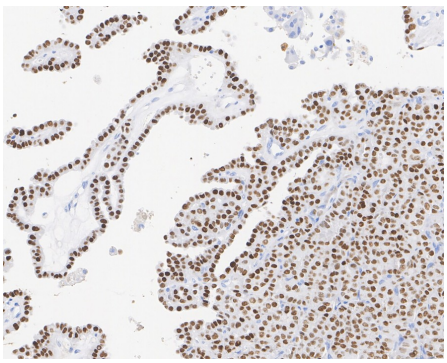

Fig3: Immunohistochemical analysis of paraffin-embedded human thyroid cancer tissue with Mouse anti-PAX8 antibody (HA601270) at 1/2,000 dilution.

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 (HA601270) 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.

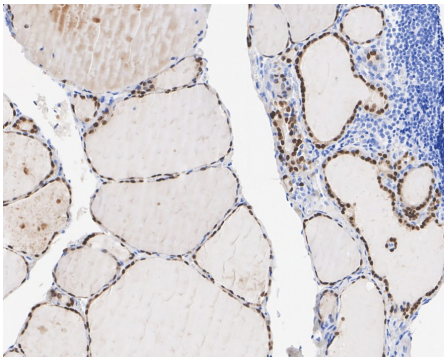

Fig4: Immunohistochemical analysis of paraffin-embedded human thyroid tissue with Mouse anti-PAX8 antibody (HA601270) at 1/2,000 dilution.

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 (HA601270) 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.

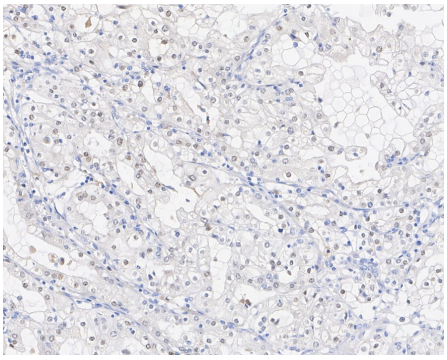

Fig5: Immunohistochemical analysis of paraffin-embedded human renal clear cell carcinoma tissue with Mouse anti-PAX8 antibody (HA601270) at 1/500 dilution.

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 (HA601270) 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.

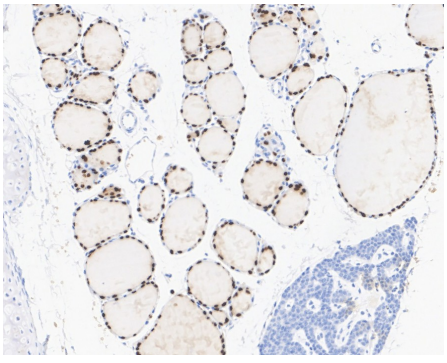

Fig6: Immunohistochemical analysis of paraffin-embedded mouse thyroid tissue with Mouse anti-PAX8 antibody (HA601270) at 1/2,000 dilution.

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 (HA601270) 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.

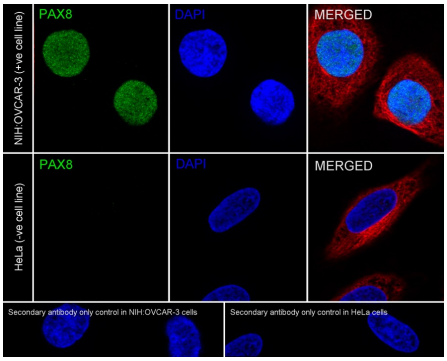

Fig7: Immunocytochemistry analysis of NIH:OVCAR-3 (positive) and HeLa (negative) labeling PAX8 with Mouse anti-PAX8 antibody (HA601270) at 1/100 dilution.

Cells were fixed in 4% paraformaldehyde for 20 minutes at room temperature, permeabilized with 0.1% Triton X-100 in PBS for 5 minutes at room temperature, then blocked with 1% BSA in 10% negative goat serum for 1 hour at room temperature. Cells were then incubated with Mouse anti-PAX8 antibody (HA601270) at 1/100 dilution in 1% BSA in PBST overnight at 4 ℃. Goat Anti-Mouse IgG H&L (iFluor™ 488, HA1125) 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.

beta Tubulin (ET1602-4, red) was stained at 1/100 dilution overnight at +4℃. Goat Anti-Rabbit IgG H&L (iFluor™ 594, HA1122) were used as the secondary antibody at 1/1,000 dilution.

Background References

1. Laury AR et al. A comprehensive analysis of PAX8 expression in human epithelial tumors. The American Journal of Surgical Pathology 35 (6): 816–26 (2011).
2. Fernández LP et al. Thyroid transcription factors in development, differentiation and disease. Nature Reviews Endocrinology 11 (1): 29-42 (2015).