Anti-Pax2 Antibody [JJ082-08]

ET1701-23

Product Type:	Recombinant Rabbit monoclonal IgG, primary antibodies
Species reactivity:	Human, Rat
Applications:	WB, IHC-P
Molecular Wt:	Predicted band size: 45 kDa
Clone number:	JJ082-08

Description: Paired box gene 2, also known as PAX2, is a protein which in humans is encoded by the PAX2 gene. The Pax Genes, or Paired-Box Containing Genes, play important roles in the development and proliferation of multiple cell lines, development of organs, and development and organization of the central nervous system. The transcription factor gene Pax2 is important in the regionalized embryological development of the central nervous system. In mammals, the brain is developed in three regions: the forebrain, midbrain, and the hindbrain. Concentration gradients of fibroblast growth factor 8 (FGF8) and Wingless-Type MMTV Integration Site Family, Member 1 (Wnt1) control expression of Pax2 during development of the Mesencephalon, or midbrain. The Pax2 gene encodes for the transcription factor which appears to be essential in the organization of the midbrain and hindbrain regions, and at the earliest can be detected on either side of the sulcus limitans, which separates motor and sensory nerve nuclei. PAX2 mutations can be responsible for renal hypoplasia, either isolated or associated with various ophthalmologic manifestations ranging from retinal coloboma to microphthalmia.

Immunogen: Recombinant protein within Human Pax2 aa 161-357 / 417.

Positive control: Human kidney tissue lysates, human kidney tissue, human renal clear cell carcinoma tissue, rat epididymis tissue.

Subcellular location: Nucleus.

Database links: SwissProt: Q02962 Human | D4ACZ2 Rat

Recommended Dilutions:

WB	1:500-1:1,000
IHC-P	1:50-1:100

Storage Buffer: 1*TBS (pH7.4), 0.05% 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

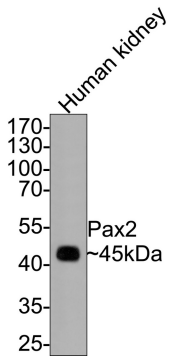

Fig1: Western blot analysis of Pax2 on human kidney tissue lysates with Rabbit anti-Pax2 antibody (ET1701-23) at 1/500 dilution.

Lysates/proteins at 20 µg/Lane.

Predicted band size: 45 kDa
Observed band size: 45 kDa

Exposure time: 2 minutes;

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 (ET1701-23) at 1/500 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.

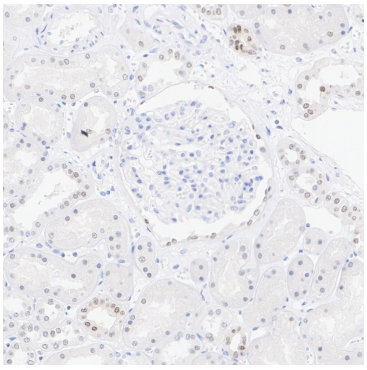

Fig2: Immunohistochemical analysis of paraffin-embedded human kidney tissue with Rabbit anti-Pax2 antibody (ET1701-23) at 1/50 dilution.

The section was pre-treated using heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0) for 20 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 (ET1701-23) at 1/50 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.

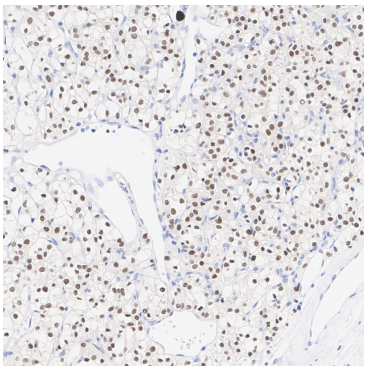

Fig3: Immunohistochemical analysis of paraffin-embedded human renal clear cell carcinoma tissue with Rabbit anti-Pax2 antibody (ET1701-23) at 1/50 dilution.

The section was pre-treated using heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0) for 20 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 (ET1701-23) at 1/50 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.

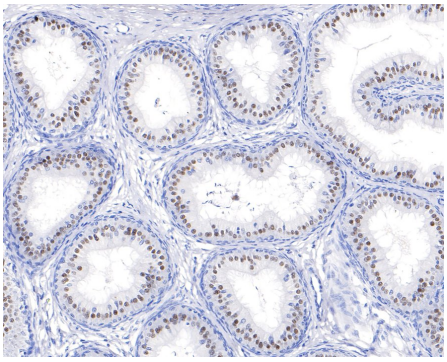

Fig4: Immunohistochemical analysis of paraffin-embedded rat epididymis tissue with Rabbit anti-Pax2 antibody (ET1701-23) at 1/100 dilution.

The section was pre-treated using heat mediated antigen retrieval with sodium citrate buffer (pH 6.0) (high pressure) 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 (ET1701-23) at 1/100 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. Redmond SA et al. Somatodendritic Expression of JAM2 Inhibits Oligodendrocyte Myelination. Neuron 91:824-36 (2016).
2. Gupta AK et al. Fetal kidney stem cells ameliorate cisplatin induced acute renal failure and promote renal angiogenesis. World J Stem Cells 7:776-88 (2015).