

Anti-Wilms Tumor Protein Antibody [SC06-41]

ET1610-45



Product Type:	Recombinant Rabbit monoclonal IgG, primary antibodies
Species reactivity:	Human, Mouse, Rat
Applications:	WB, IF-Cell, IF-Tissue, IHC-P, mIHC
Molecular Wt:	Predicted band size: 49 kDa
Clone number:	SC06-41

Description: The WT1 gene located at chromosome 11p13 codes for a transcription factor, a DNA-binding nucleoprotein, 52-62 kDa, that plays a role primarily in the development of genitourinary organs. Although originally identified as a tumour suppressor gene, a variety neoplasms are associated with WT1 over expression. Over expression of both wild-type and mutant WT1 has been reported. Among epithelial tumours, nuclear WT1 is strongly expressed in ovarian serous carcinoma (97% of the tumours, usually a widespread reaction), peritoneal serous carcinoma, ovarian transitional carcinoma, and about half of ovarian endometrioid carcinoma. Also metanephric adenoma is positive. Limited nuclear WT1 expression has been documented in a small percentage of various others carcinomas such as ovarian clear cell carcinoma, uterine papillary serous carcinoma, uterine endometrioid carcinoma, renal cell carcinoma (chromophobic and papillary), breast carcinoma, lung carcinoma, and pancreaticobiliary carcinoma. Among nonepithelial tumours, nuclear WT1 is strongly expressed in the large majority of malignant mesothelioma and sex cord-stromal tumours. Nuclear WT1 has moreover been demonstrated in Wilms' tumour (about 50% of the cases, involving epithelial, stromal and blastemal elements), malignant rhabdoid tumour, adenomatoid tumour, endometrial stromal sarcoma, uterine leiomyosarcoma, mixed mullerian tumour, as well as in some malignant lymphomas (lymphoblastic and Burkitt's lymphoma), and most cases of acute leukaemia. WT1 is particularly used for distinguishing malignant mesothelioma and ovarian serous carcinoma from nonserous carcinomas. As for malignant mesothelioma, calretinin and WT1 are superior to cytokeratin 5/6, N-cadherin and thrombomodulin. WT1 is also applicable for the differential diagnostic of small cell childhood tumours.

Immunogen: Recombinant protein within Human WT1 aa 59-269 / 449.

Positive control: K-562 cell lysate, Mouse testis tissue lysate, Rat testis tissue lysate, K-562, mouse testis tissue, mouse kidney tissue, human fallopian tube tissue, human testis tissue, human ovary cancer tissue, rat testis tissue.

Subcellular location: Nucleus, Cytoplasm, Nucleus speckle.

Database links: SwissProt: P19544 Human | P22561 Mouse | P49952 Rat

Recommended Dilutions:

WB	1:2,000-1:5,000
IF-Cell	1:100-1:200
IF-Tissue	1:200
IHC-P	1:500-1:1,000
mIHC	1:100

Storage Buffer: 1*PBS (pH7.4), 0.1% BSA, 40% Glycerol, 0.2% Proclean 950.

Storage Instruction: Shipped at 4℃. Store at +4℃ short term (1-2 weeks). Store at -20℃ long term.

Purity: Protein A affinity purified.

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Orders:0086-571-88062880

Technical:0086-571-89986345

Service mail:support@huabio.cn

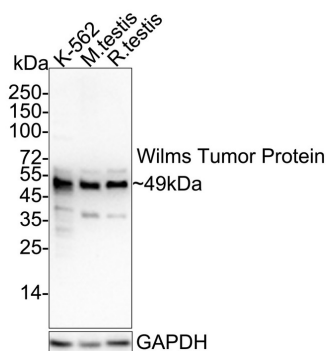
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Applications:WB=Western blot IHC-P=Immunohistochemistry (paraffin) IF-Cell=Immunofluorescence (Cell) IF-Tissue=Immunofluorescence (Tissue) FC=Flow cytometry IP=Immunoprecipitation

Images

Fig1: Western blot analysis of Wilms Tumor Protein on different lysates with Rabbit anti-Wilms Tumor Protein antibody (ET1610-45) at 1/2,000 dilution.

Lane 1: K-562 cell lysate (no heat) (20 µg/Lane)
 Lane 2: Mouse testis tissue lysate (40 µg/Lane)
 Lane 2: Rat testis tissue lysate (40 µg/Lane)



Notice: no heat means the lysate is not boiled.

Predicted band size: 49 kDa
 Observed band size: 49 kDa

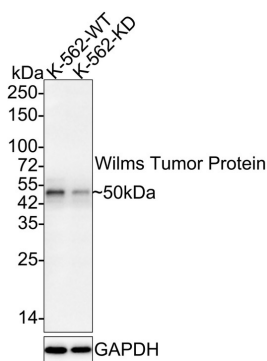
Exposure time: 42 seconds; ECL: K1801;

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 (ET1610-45) at 1/2,000 dilution was used in 5% NFDM/TBST at 4°C overnight. Goat Anti-Rabbit IgG - HRP Secondary Antibody (HA1001) at 1/50,000 dilution was used for 1 hour at room temperature.

Fig2: Western blot analysis of Wilms Tumor Protein on different lysates with Rabbit anti-Wilms Tumor Protein antibody (ET1610-45) at 1/5,000 dilution.

Lane 1: K-562-si NT cell lysate
 Lane 2: K-562-si Wilms Tumor Protein cell lysate



Lysates/proteins at 10 µg/Lane.

Predicted band size: 49 kDa
 Observed band size: 50 kDa

Exposure time: 2 minutes 37 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 (ET1610-45) at 1/5,000 dilution was used in 5% NFDM/TBST at 4°C overnight. Goat Anti-Rabbit IgG - HRP Secondary Antibody (HA1001) at 1/50,000 dilution was used for 1 hour at room temperature.

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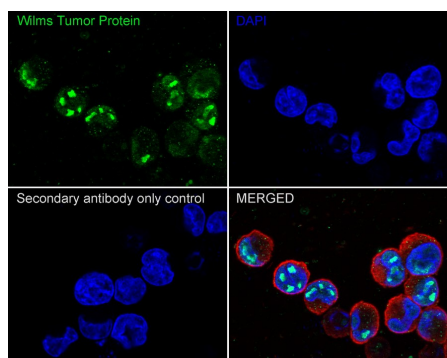
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Fig3: Immunocytochemistry analysis of K-562 cells labeling Wilms Tumor Protein with Rabbit anti-Wilms Tumor Protein antibody (ET1610-45) at 1/100 dilution.



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 Rabbit anti-Wilms Tumor Protein antibody (ET1610-45) at 1/100 dilution in 1% BSA in PBST 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.

Beta tubulin (M1305-2, red) was stained at 1/100 dilution overnight at +4 °C. Goat Anti-Mouse IgG H&L (iFluor™ 594, HA1126) was used as the secondary antibody at 1/1,000 dilution.

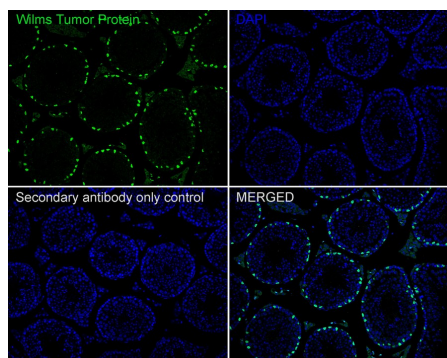


Fig4: Immunofluorescence analysis of paraffin-embedded mouse testis tissue labeling Wilms Tumor Protein with Rabbit anti-Wilms Tumor Protein antibody (ET1610-45) at 1/200 dilution.

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 10% negative goat serum for 1 hour at room temperature, washed with PBS, and then probed with the primary antibody (ET1610-45, green) at 1/200 dilution overnight at 4 °C, washed with PBS. Goat Anti-Rabbit IgG H&L (iFluor™ 488, HA1121) was used as the secondary antibody at 1/1,000 dilution. Nuclei were counterstained with DAPI (blue).

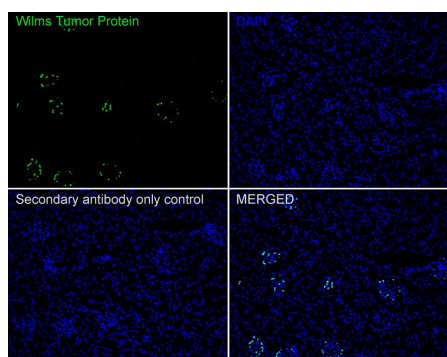


Fig5: Immunofluorescence analysis of paraffin-embedded mouse kidney tissue labeling Wilms Tumor Protein with Rabbit anti-Wilms Tumor Protein antibody (ET1610-45) at 1/200 dilution.

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 10% negative goat serum for 1 hour at room temperature, washed with PBS, and then probed with the primary antibody (ET1610-45, green) at 1/200 dilution overnight at 4 °C, washed with PBS. Goat Anti-Rabbit IgG H&L (iFluor™ 488, HA1121) was used as the secondary antibody at 1/1,000 dilution. Nuclei were counterstained with DAPI (blue).

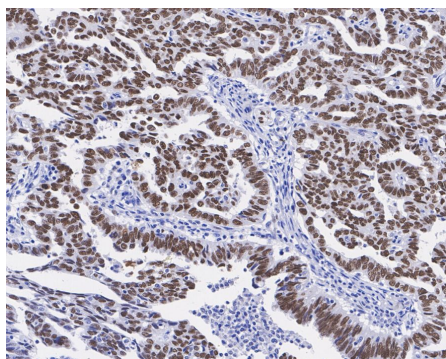


Fig6: Immunohistochemical analysis of paraffin-embedded human ovary cancer tissue with Rabbit anti-Wilms Tumor Protein antibody (ET1610-45) at 1/500 dilution.

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 ddH₂O and PBS, and then probed with the primary antibody (ET1610-45) 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.

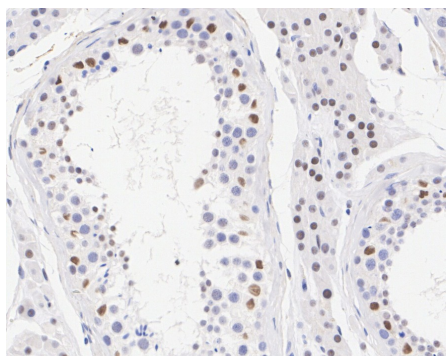


Fig7: Immunohistochemical analysis of paraffin-embedded human testis tissue with Rabbit anti-Wilms Tumor Protein antibody (ET1610-45) at 1/1,000 dilution.

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 ddH₂O and PBS, and then probed with the primary antibody (ET1610-45) 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.

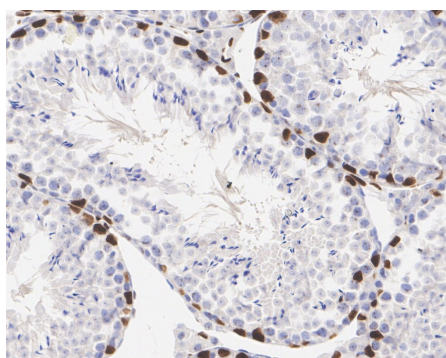


Fig8: Immunohistochemical analysis of paraffin-embedded mouse testis tissue with Rabbit anti-Wilms Tumor Protein antibody (ET1610-45) at 1/1,000 dilution.

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 ddH₂O and PBS, and then probed with the primary antibody (ET1610-45) 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.

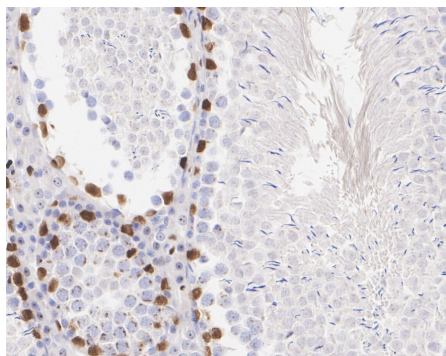


Fig9: Immunohistochemical analysis of paraffin-embedded rat testis tissue with Rabbit anti-Wilms Tumor Protein antibody (ET1610-45) at 1/1,000 dilution.

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 ddH₂O and PBS, and then probed with the primary antibody (ET1610-45) 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.

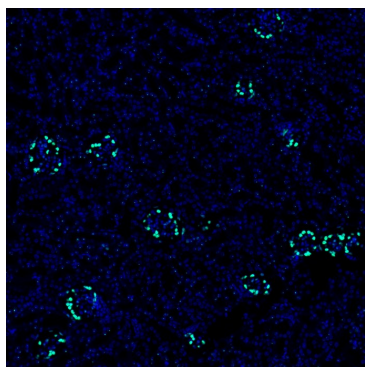


Fig10: mIHC analysis of mouse kidney tissue (Formalin/PFA-fixed paraffin-embedded sections) with Rabbit anti-Wilms Tumor Protein antibody (ET1610-45) at 1/100 dilution. The immunostaining was performed with the IRISKitCmTSA Kit (900808). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0) for 30 mins at 95°C. DAPI (blue) was used as a nuclear counter stain. Image acquisition was performed with Olympus VS200 Slide Scanner.

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

Background References

1. Kirschner KM et al. WT1 in Adipose Tissue: From Development to Adult Physiology. *Front Cell Dev Biol.* 2022 Mar
2. Ni Z et al. WT1 directs normal progesterone receptor-chromatin binding essential for uterine receptivity at peri-implantation. *Proc Natl Acad Sci U S A.* 2025 Jul

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