

Anti-NKX3.1 Antibody [JE36-27]

HA721383



Product Type:	Recombinant Rabbit monoclonal IgG, primary antibodies
Species reactivity:	Human
Applications:	WB, IHC-P
Molecular Wt:	Predicted band size: 26 kDa
Clone number:	JE36-27

Description: Homeobox protein Nkx-3.1, also known as NKX3-1, NKX3, BAPX2, NKX3A and NKX3.1 is a protein that in humans is encoded by the NKX3-1 gene located on chromosome 8p. NKX3-1 is a prostatic tumor suppressor gene. NKX3-1 is an androgen-regulated, prostate-specific homeobox gene whose expression is predominantly localized to prostate epithelium. It acts as a transcription factor that has critical function in prostate development and tumor suppression. It is a negative regulator of epithelial cell growth in prostate tissue. The NKX3-1 homeobox protein is encoded by the NKX3-1 gene. The homeodomain-containing transcription factor NKX3A is a putative prostate tumor suppressor that is expressed in a largely prostate-specific and androgen-regulated manner. Loss of NKX3A protein expression is a common finding in human prostate carcinomas and prostatic intraepithelial neoplasia.

Immunogen: Recombinant protein within Human NKX3.1 aa 1-234 / 234.

Positive control: A549 cell lysate, RWPE-1 cell lysate, LNCaP cell lysate, human prostate tissue, human prostate carcinoma tissue, human testis tissue.

Subcellular location: Nucleus.

Database links: SwissProt: Q99801 Human

Recommended Dilutions:

WB	1:500-1:1,000
IHC-P	1:200-1:1,000

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.

Hangzhou Huaan Biotechnology Co., Ltd.

Orders:0086-571-88062880

Technical:0086-571-89986345

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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 NKX3.1 on different lysates with Rabbit anti-NKX3.1 antibody (HA721383) at 1/1,000 dilution.

Lane 1: A549 cell lysate

Lane 2: RWPE-1 cell lysate

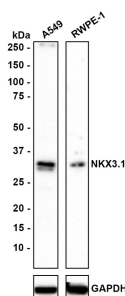
Lysates/proteins at 10 µg/Lane.

Predicted band size: 26 kDa

Observed band size: 30 kDa

Exposure time: 3 minutes;

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 (HA721383) 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: Western blot analysis of NKX3.1 on different lysates with Rabbit anti-NKX3.1 antibody (HA721383) at 1/500 dilution.

Lane 1: LNCaP cell lysate

Lane 2: PC-3M cell lysate (negative)

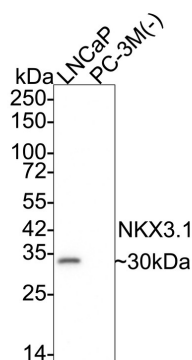
Lysates/proteins at 20 µg/Lane.

Predicted band size: 26 kDa

Observed band size: 30 kDa

Exposure time: 3 minutes; 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 (HA721383) 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 1/50,000 dilution was used for 1 hour at room temperature.

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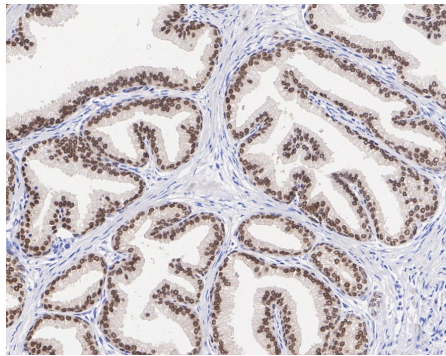


Fig3: Immunohistochemical analysis of paraffin-embedded human prostate tissue with Rabbit anti-NKX3.1 antibody (HA721383) at 1/1,000 dilution.

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 (HA721383) 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.

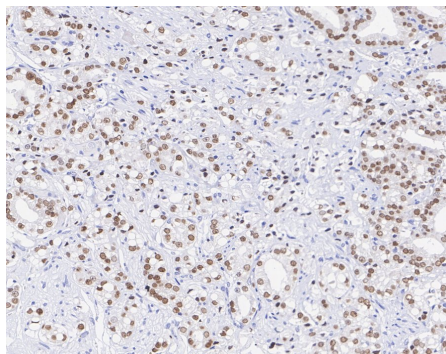


Fig4: Immunohistochemical analysis of paraffin-embedded human prostate carcinoma tissue with Rabbit anti-NKX3.1 antibody (HA721383) at 1/1,000 dilution.

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 (HA721383) 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.

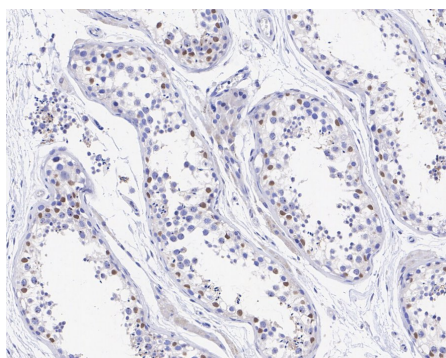


Fig5: Immunohistochemical analysis of paraffin-embedded human testis tissue with Rabbit anti-NKX3.1 antibody (HA721383) at 1/200 dilution.

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 1% BSA for 20 minutes at room temperature, washed with ddH₂O and PBS, and then probed with the primary antibody (HA721383) at 1/200 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.

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

Background References

1. Antao AM et al. The Role of Nkx3.1 in Cancers and Stemness. Int J Stem Cells. 2021 May
2. Papachristodoulou A et al. NKX3.1 Localization to Mitochondria Suppresses Prostate Cancer Initiation. Cancer Discov. 2021 Sep

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