Anti-FOXA1 Antibody [JF10-02] - BSA and Azide free

HA750363

Product Type:	Recombinant Rabbit monoclonal IgG, primary antibodies
Species reactivity:	Human, Mouse, Rat
Applications:	WB, IF-Cell, IF-Tissue, IHC-P
Molecular Wt:	Predicted band size: 49 kDa
Clone number:	JF10-02

Description: Forkhead box protein A1 (FOXA1), also known as hepatocyte nuclear factor 3-alpha (HNF-3A), is a protein that in humans is encoded by the FOXA1 gene. FOXA1 is a member of the forkhead class of DNA-binding proteins. These hepatocyte nuclear factors are transcriptional activators for liver-specific transcripts such as albumin and transthyretin, and they also interact with chromatin as a pioneer factor. Similar family members in mice have roles in the regulation of metabolism and in the differentiation of the pancreas and liver. Mutations in this gene have been recurrently seen in instances of prostate cancer. Expression of FOXA1 correlates with two EMT markers, namely Twist1 and E-cadherin in breast cancer.

Immunogen: Recombinant protein within Human FOXA1 aa 320-472 / 472.

Positive control: MCF7 cell lysate, HepG2 cell lysate, A549 cell lysate, LNCaP cell lysate, LNCaP, MCF-7, human breast carcinoma tissue, human prostate tissue, human prostate carcinoma tissue, human urethral carcinoma tissue, mouse liver tissue, rat liver tissue.

Subcellular location: Nucleus.

Database links: SwissProt: P55317 Human | P35582 Mouse | P23512 Rat

Recommended Dilutions:

WB	1:2,000
IF-Cell	1:50-1:250
IF-Tissue	1:50-1:1,000
IHC-P	1:50-1:200

Storage Buffer: 1*PBS (pH7.4).

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

Purity: Protein A affinity purified.

Images

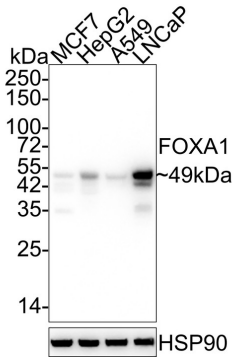

Fig1: Western blot analysis of FOXA1 on different lysates with Rabbit anti-FOXA1 antibody (HA750363) at 1/2,000 dilution.

Lane 1: MCF7 cell lysate
Lane 2: HepG2 cell lysate
Lane 3: A549 cell lysate
Lane 4: LNCaP cell lysate

Lysates/proteins at 20 µg/Lane.

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

Exposure time: 5 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 (HA750363) at 1/2,000 dilution was used in 5% NFDM/TBST at 4℃ overnight. Goat Anti-Rabbit IgG - HRP Secondary Antibody (HA1001) at 1/50,000 dilution was used for 1 hour at room temperature.

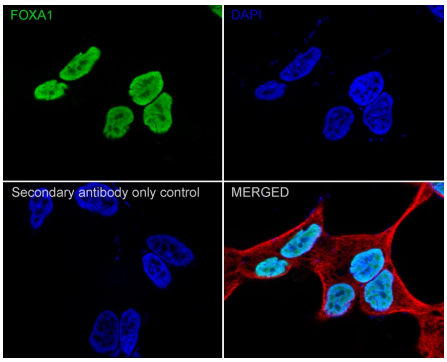

Fig2: Immunocytochemistry analysis of LNCaP cells labeling FOXA1 with Rabbit anti-FOXA1 antibody (HA750363) at 1/250 dilution.

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-FOXA1 antibody (HA750363) at 1/250 dilution in 1% BSA in PBST overnight at 4 ℃. 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℃. Goat Anti-Mouse IgG H&L (iFluor™ 594, HA1126) was used as the secondary antibody at 1/1,000 dilution.

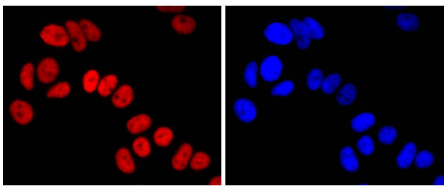

Fig3: ICC staining of FOXA1 in MCF-7 cells (red). Formalin fixed cells were permeabilized with 0.1% Triton X-100 in TBS for 10 minutes at room temperature and blocked with 10% negative goat serum for 15 minutes at room temperature. Cells were probed with the primary antibody (HA750363, 1/50) for 1 hour at room temperature, washed with PBS. Alexa Fluor®594 conjugate-Goat anti-Rabbit IgG was used as the secondary antibody at 1/1,000 dilution. The nuclear counter stain is DAPI (blue).

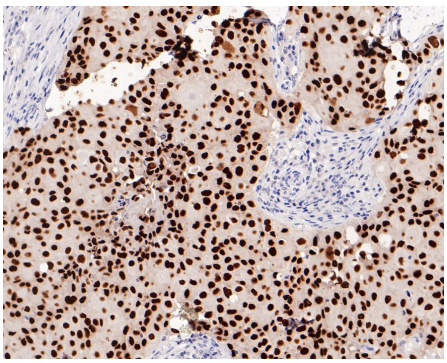

Fig4: Immunohistochemical analysis of paraffin-embedded human breast carcinoma tissue with Rabbit anti-FOXA1 antibody (HA750363) at 1/1,000 dilution.

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 ddH_2O and PBS, and then probed with the primary antibody (HA750363) 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.

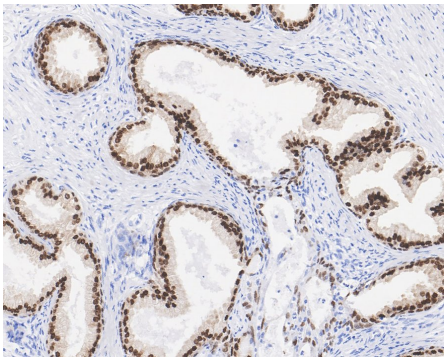

Fig5: Immunohistochemical analysis of paraffin-embedded human prostate tissue with Rabbit anti-FOXA1 antibody (HA750363) at 1/500 dilution.

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 ddH_2O and PBS, and then probed with the primary antibody (HA750363) 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.

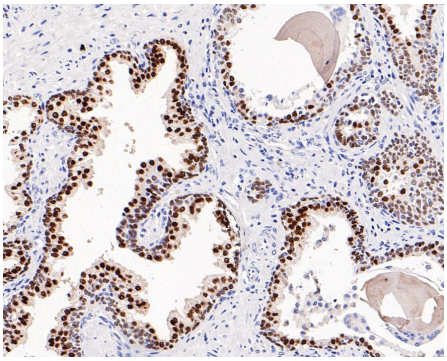

Fig6: Immunohistochemical analysis of paraffin-embedded human prostate carcinoma tissue with Rabbit anti-FOXA1 antibody (HA750363) at 1/1,000 dilution.

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 ddH_2O and PBS, and then probed with the primary antibody (HA750363) 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.

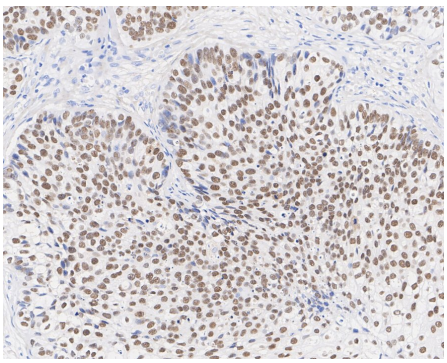

Fig7: Immunohistochemical analysis of paraffin-embedded human urethral carcinoma tissue with Rabbit anti-FOXA1 antibody (HA750363) at 1/100 dilution.

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 (HA750363) 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.

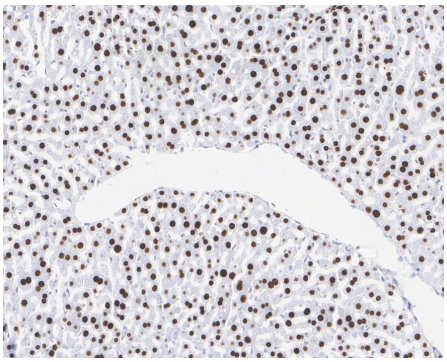

Fig8: Immunohistochemical analysis of paraffin-embedded mouse liver tissue with Rabbit anti-FOXA1 antibody (HA750363) at 1/500 dilution.

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 ddH_2O and PBS, and then probed with the primary antibody (HA750363) 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.

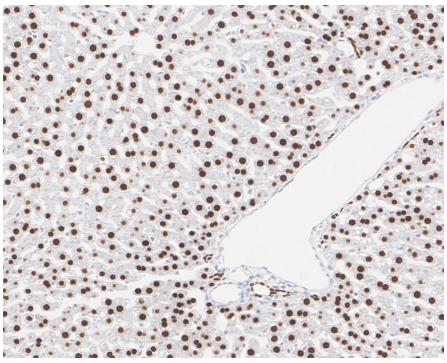

Fig9: Immunohistochemical analysis of paraffin-embedded rat liver tissue with Rabbit anti-FOXA1 antibody (HA750363) at 1/500 dilution.

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 ddH_2O and PBS, and then probed with the primary antibody (HA750363) 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.

Background References

1. Yang YA et al. FOXA1 potentiates lineage-specific enhancer activation through modulating TET1 expression and function. Nucleic Acids Res 44:8153-64 (2016).
2. Guaraldo M et al. Characterization of human mitochondrial ferritin promoter: identification of transcription factors and evidences of epigenetic control. Sci Rep 6:33432 (2016).