Anti-Cytokeratin 17 Antibody [SR45-06]

ET1602-16

Product Type:	Recombinant Rabbit monoclonal IgG, primary antibodies
Species reactivity:	Human, Mouse, Rat
Applications:	WB, IF-Cell, IF-Tissue, IHC-P, FC
Molecular Wt:	Predicted band size: 48 kDa
Clone number:	SR45-06

Description: Cytokeratin 17 is a member of the Cytokeratin subfamily of intermediate filament proteins (IFPs). It is unique in that it is normally expressed in the basal cells of complex epithelia but not in stratified or simple epithelia. Cytokeratin 17 contains 432 amino acids and is expressed in the nail bed, hair follicle, sebaceous glands and other epidermal appendages. Cytokeratin 17 functions to regulate cell growth and size through its interactions with the adaptor protein 14-3-3-sigma to mediate protein synthesis. Mutations in the gene encoding for Cytokeratin 17 lead to depressed protein translation and smaller sized skin keratinocytes, corresponding to decreased Akt/mTOR signaling activity. Cytokeratin 17 may be a useful marker for cervical stem cell identification, squamous cell carcinoma of the larynx, respiratory syncytial virus and transitional cell carcinomas of the human urinary tract.

Immunogen: Synthetic peptide within Human Cytokeratin 17 aa 1-50 / 432.

Positive control: A431 cell lysates, Hela, PC-3M, human prostate tissue, human skin tissue, human tonsil tissue, mouse prostate tissue, human cervical carcinoma tissue.

Subcellular location: Cytoplasm

Database links: SwissProt: Q04695 Human | Q9QWL7 Mouse | Q6IFU8 Rat

Recommended Dilutions:

WB	1:2,000
IF-Cell	1:50
IF-Tissue	1:200
IHC-P	1:50-1:1,500
FC	1:50

Storage Buffer: 1*TBS (pH7.4), 0.05% BSA, 40% Glycerol. Preservative: 0.05% Sodium Azide.

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

Purity: Protein A affinity purified.

Images

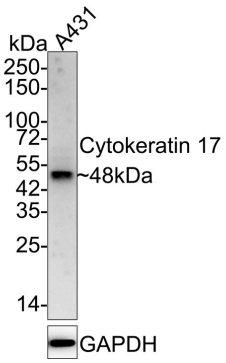

Fig1: Western blot analysis of Cytokeratin 17 on A431 cell lysates with Rabbit anti-Cytokeratin 17 antibody (ET1602-16) at 1/2,000 dilution.

Lysates/proteins at 15 µg/Lane.

Predicted band size: 48 kDa
Observed band size: 48 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 (ET1602-16) 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.

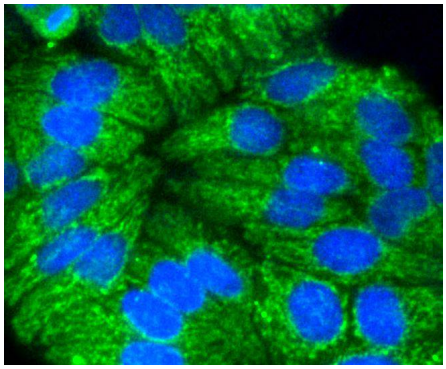

Fig2: ICC staining of Cytokeratin 17 in Hela cells (green). Formalin fixed cells were permeabilized with 0.1% Triton X-100 in TBS for 10 minutes at room temperature and blocked with 1% Blocker BSA for 15 minutes at room temperature. Cells were probed with the primary antibody (ET1602-16, 1/50) for 1 hour at room temperature, washed with PBS. Alexa Fluor®488 Goat anti-Rabbit IgG was used as the secondary antibody at 1/1,000 dilution. The nuclear counter stain is DAPI (blue).

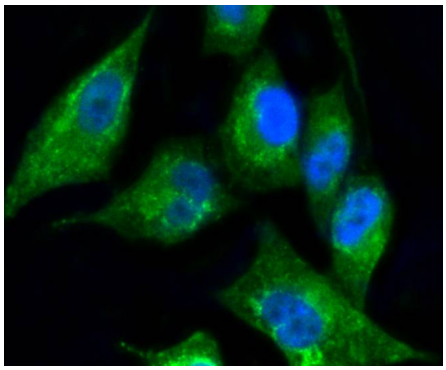

Fig3: ICC staining of Cytokeratin 17 in PC-3M cells (green). Formalin fixed cells were permeabilized with 0.1% Triton X-100 in TBS for 10 minutes at room temperature and blocked with 1% Blocker BSA for 15 minutes at room temperature. Cells were probed with the primary antibody (ET1602-16, 1/50) for 1 hour at room temperature, washed with PBS. Alexa Fluor®488 Goat anti-Rabbit IgG was used as the secondary antibody at 1/1,000 dilution. The nuclear counter stain is DAPI (blue).

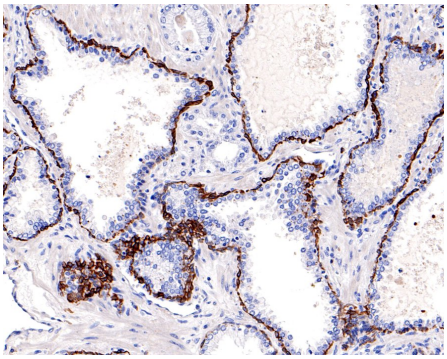

Fig4: Immunohistochemical analysis of paraffin-embedded human prostate tissue using anti-Cytokeratin 17 antibody. The section was pre-treated using heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0) for 20 minutes.The tissues were blocked in 5% BSA for 30 minutes at room temperature, washed with ddH_2O and PBS, and then probed with the primary antibody (ET1602-16, 1/400) for 30 minutes 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.

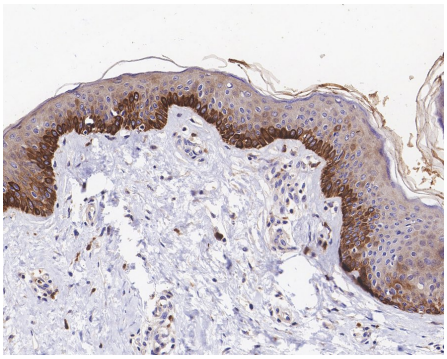

Fig5: Immunohistochemical analysis of paraffin-embedded human skin tissue with Rabbit anti-Cytokeratin 17 antibody (ET1602-16) at 1/1,500 dilution.

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 (ET1602-16) at 1/1,500 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.

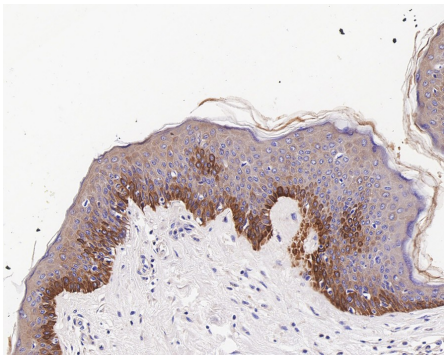

Fig6: Immunohistochemical analysis of paraffin-embedded human skin tissue with Rabbit anti-Cytokeratin 17 antibody (ET1602-16) at 1/1,500 dilution.

The section was not undergone antigen retrieval. 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 (ET1602-16) at 1/1,500 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.

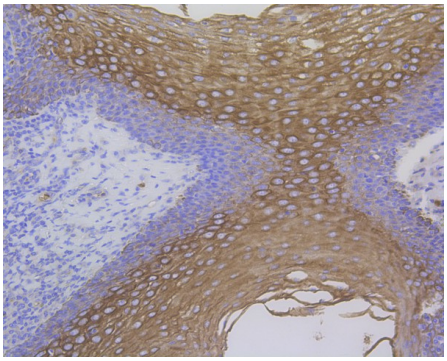

Fig7: Immunohistochemical analysis of paraffin-embedded human tonsil tissue using anti-Cytokeratin 17 antibody. The section was pre-treated using heat mediated antigen retrieval with Tris-EDTA buffer (pH 8.0-8.4) for 20 minutes.The tissues were blocked in 5% BSA for 30 minutes at room temperature, washed with ddH_2O and PBS, and then probed with the primary antibody (ET1602-16, 1/50) for 30 minutes 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.

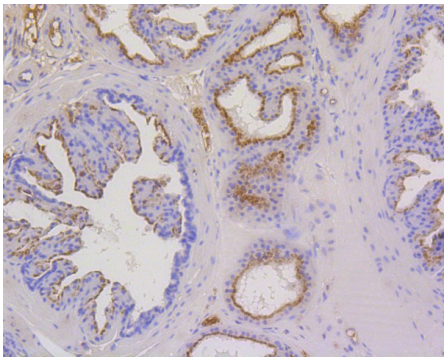

Fig8: Immunohistochemical analysis of paraffin-embedded mouse prostate tissue using anti-Cytokeratin 17 antibody. The section was pre-treated using heat mediated antigen retrieval with Tris-EDTA buffer (pH 8.0-8.4) for 20 minutes.The tissues were blocked in 5% BSA for 30 minutes at room temperature, washed with ddH_2O and PBS, and then probed with the primary antibody (ET1602-16, 1/50) for 30 minutes 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.

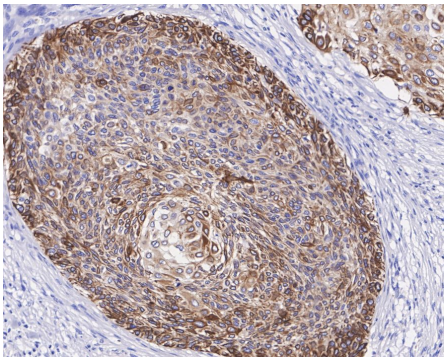

Fig9: Immunohistochemical analysis of paraffin-embedded human cervical carcinoma tissue with Rabbit anti-Cytokeratin 17 antibody (ET1602-16) at 1/1,500 dilution.

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 (ET1602-16) at 1/1,500 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.

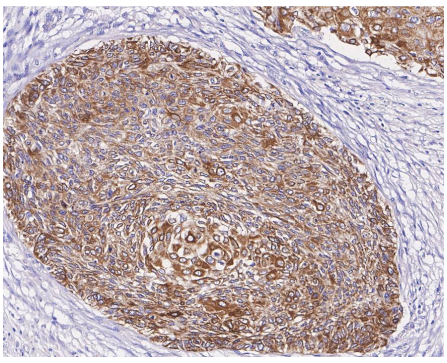

Fig10: Immunohistochemical analysis of paraffin-embedded human cervical carcinoma tissue with Rabbit anti-Cytokeratin 17 antibody (ET1602-16) at 1/1,500 dilution.

The section was not undergone antigen retrieval. 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 (ET1602-16) at 1/1,500 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.

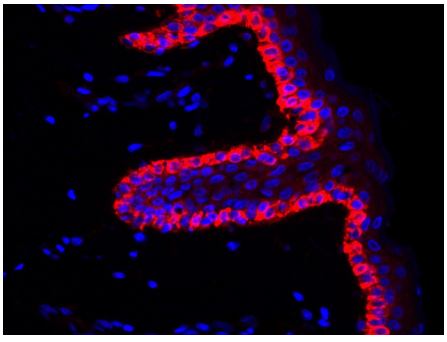

Fig11: Immunofluorescence analysis of paraffin-embedded human skin tissue labeling Cytokeratin 17 (ET1602-16).

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 10% negative goat serum for 1 hour at room temperature, washed with PBS. And then probed with the primary antibodies Cytokeratin 17 (ET1602-16, red) at 1/200 dilution at +4℃ overnight, washed with PBS.

Goat Anti-Rabbit IgG H&L (iFluor™ 594, HA1122) was used as the secondary antibodies at 1/1,000 dilution. Nuclei were counterstained with DAPI (blue).

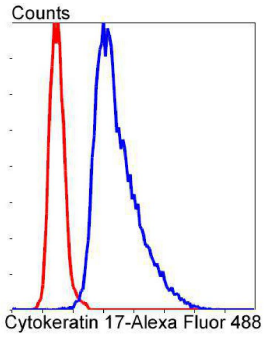

Fig12: Flow cytometric analysis of Cytokeratin 17 was done on Hela cells. The cells were fixed, permeabilized and stained with the primary antibody (ET1602-16, 1/50) (blue). After incubation of the primary antibody at room temperature for an hour, the cells were stained with a Alexa Fluor 488-conjugated Goat anti-Rabbit IgG Secondary antibody at 1/1000 dilution for 30 minutes.Unlabelled sample was used as a control (cells without incubation with primary antibody; red).

Background References

1. Doucet YS et al. The touch dome defines an epidermal niche specialized for mechanosensory signaling. Cell Rep 3:1759-65 (2013).
2. Johnson EK et al. Identification of new dystroglycan complexes in skeletal muscle. PLoS One 8:e73224 (2013).