Anti-Cytokeratin 5+6 Antibody [PSH0-67]

HA721455

Product Type:	Recombinant Rabbit monoclonal IgG, primary antibodies
Species reactivity:	Human, Mouse, Rat
Applications:	IHC-P, IF-Tissue, WB
Molecular Wt:	Predicted band size: 60 kDa
Clone number:	PSH0-67

Description: Cytokeratins comprise a diverse group of intermediate filament proteins (IFPs) that are expressed as pairs in both keratinized and non-keratinized epithelial tissue, where they constitute up to 85% of mature keratinocytes in the vertebrate epidermis. Cytokeratins play a critical role in differentiation and tissue specialization and function to maintain the overall structural integrity of epithelial cells. The alpha-helical coiled-coil dimers associate laterally end-to-end to form 10 nm diameter filaments. Cytokeratins, which are useful markers of tissue differentiation, also aid in the characterization of malignant tumors. IL-1 and TNFα induce transcription of cytokeratin 6 in epidermal keratinocytes via the C/EBP β transcription factor. In humans, multiple isoforms of cytokeratin 6 (6A-6F), encoded by several highly homologous genes, have distinct tissue expression patterns, and cytokeratin 6A is the dominant form in epithelial tissue. The gene encoding human cytokeratin 6A maps to chromosome 12q13, and mutations in this gene are linked to several inheritable hair and skin pathologies.

Immunogen: Synthetic peptide within human Cytokeratin 6 186-235.

Positive control: Human breast tissue, mouse skin tissue, rat skin tissue, mouse brain tissue lysate, rat brain tissue lysate, human lung squamous cell carcinoma tissue, human skin tissue, human tonsil tissue.

Subcellular location: Cytoskeleton.

Database links: SwissProt: P02538 Human | P04259 Human | P13647 Human

Recommended Dilutions:

IHC-P	1:200-1:1,000
IF-Tissue	1:1,000
WB	1:1,000

Storage Buffer: PBS (pH7.4), 0.1% 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

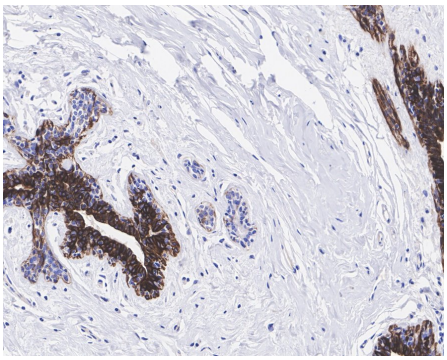

Fig1: Immunohistochemical analysis of paraffin-embedded human breast tissue with Rabbit anti-Cytokeratin 5+6 antibody (HA721455) at 1/1,000 dilution.

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 ddH_2O and PBS, and then probed with the primary antibody (HA721455) 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.

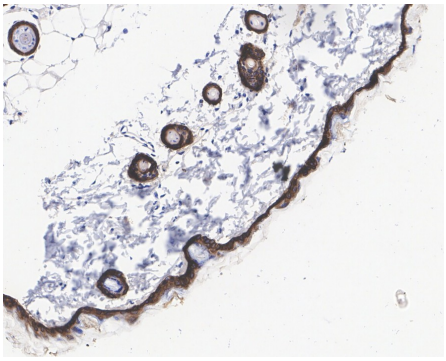

Fig2: Immunohistochemical analysis of paraffin-embedded mouse skin tissue with Rabbit anti-Cytokeratin 5+6 antibody (HA721455) at 1/1,000 dilution.

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 ddH_2O and PBS, and then probed with the primary antibody (HA721455) 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.

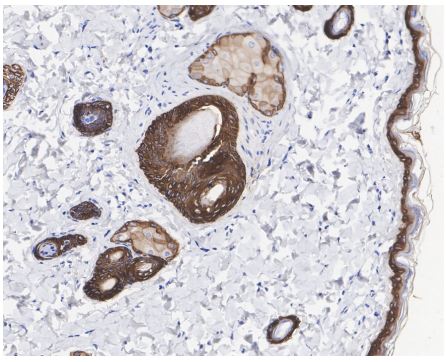

Fig3: Immunohistochemical analysis of paraffin-embedded rat skin tissue with Rabbit anti-Cytokeratin 5+6 antibody (HA721455) at 1/1,000 dilution.

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 ddH_2O and PBS, and then probed with the primary antibody (HA721455) 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.

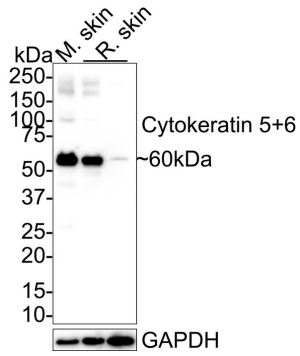

Fig4: Western blot analysis of Cytokeratin 5+6 on different lysates with Rabbit anti-Cytokeratin 5+6 antibody (HA721455) at 1/1,000 dilution.

Lane 1: Mouse skin tissue lysate (hot lysis)
Lane 2: Rat skin tissue lysate (hot lysis)
Lane 3: Rat skin tissue lysate (RIPA lysis)

Lysates/proteins at 40 µg/Lane.

Predicted band size: 60 kDa
Observed band size: 60 kDa

Exposure time: 20 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 (HA721455) 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.

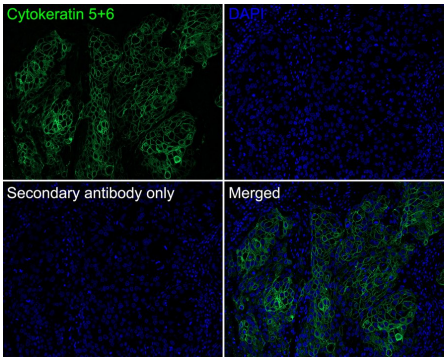

Fig5: Immunofluorescence analysis of paraffin-embedded human lung squamous cell carcinoma tissue labeling Cytokeratin 5+6 with Rabbit anti-Cytokeratin 5+6 antibody (HA721455) at 1/1,000 dilution.

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 10% negative goat serum for 1 hour at room temperature, washed with PBS, and then probed with the primary antibody (HA721455, green) at 1/1,000 dilution overnight at 4 ℃, 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).

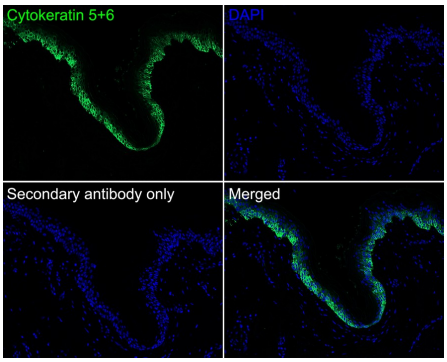

Fig6: Immunofluorescence analysis of paraffin-embedded human skin tissue labeling Cytokeratin 5+6 with Rabbit anti-Cytokeratin 5+6 antibody (HA721455) at 1/1,000 dilution.

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 10% negative goat serum for 1 hour at room temperature, washed with PBS, and then probed with the primary antibody (HA721455, green) at 1/1,000 dilution overnight at 4 ℃, 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).

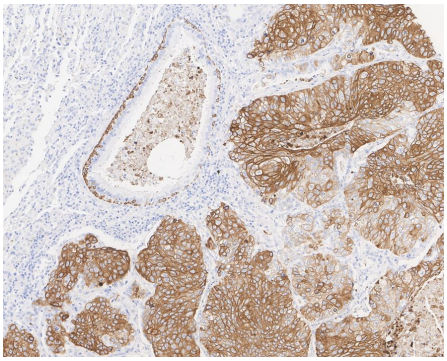

Fig7: Immunohistochemical analysis of paraffin-embedded human lung squamous cell carcinoma tissue with Rabbit anti-Cytokeratin 5+6 antibody (HA721455) at 1/1,000 dilution.

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 ddH_2O and PBS, and then probed with the primary antibody (HA721455) 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.

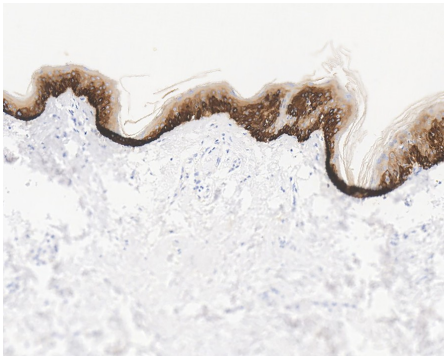

Fig8: Immunohistochemical analysis of paraffin-embedded human skin tissue with Rabbit anti-Cytokeratin 5+6 antibody (HA721455) at 1/1,000 dilution.

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 ddH_2O and PBS, and then probed with the primary antibody (HA721455) 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.

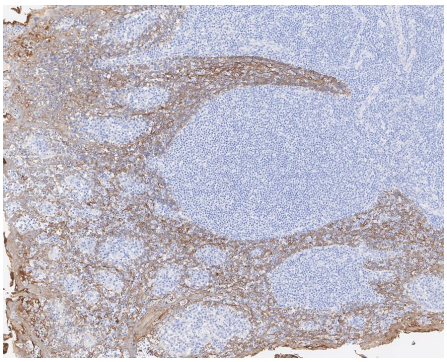

Fig9: Immunohistochemical analysis of paraffin-embedded human tonsil tissue with Rabbit anti-Cytokeratin 5+6 antibody (HA721455) at 1/200 dilution.

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 (HA721455) 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.

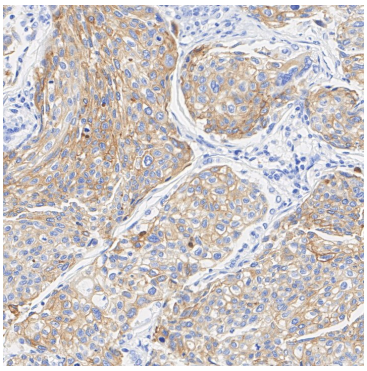

Fig10: Immunohistochemical analysis of paraffin embedded human lung squamous cell carcinoma tissue using anti-Cytokeratin 5+6 antibody (1/1,000) performed on the Leica® BOND™ RX.

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

Background References

1. Yamamoto Y et al. Cytokeratin 5/6 expression in pT1 bladder cancer predicts intravesical recurrence in patients treated with bacillus Calmette-Guérin instillation. Pathology. 2022 Oct
2. Iakymenko OA et al. Utility of D2-40, Cytokeratin 5/6, and High-Molecular-weight Cytokeratin (Clone 34βE12) in Distinguishing Intraductal Spread of Urothelial Carcinoma From Prostatic Stromal Invasion. Am J Surg Pathol. 2022 Apr