

# Anti-Cytokeratin 10 Antibody [ST05-43]

## ET1609-75



<b>Product Type:</b>	Recombinant Rabbit monoclonal IgG, primary antibodies
<b>Species reactivity:</b>	Human, Mouse, Rat
<b>Applications:</b>	WB, IF-Cell, IF-Tissue, IHC-P
<b>Molecular Wt:</b>	Predicted band size: 59 kDa
<b>Clone number:</b>	ST05-43

**Description:** Cytokeratins comprise a diverse group of intermediate filament proteins (IFPs) that are expressed as pairs in both keratinized and non-keratinized epithelial tissue. Cytokeratins play a critical role in differentiation and tissue specialization and function to maintain the overall structural integrity of epithelial cells. Cytokeratins have been found to be useful markers of tissue differentiation which is directly applicable to the characterization of malignant tumors. Cytokeratins 10 and 13 are present in the cytoskeletal region of a subset of squamous cell carcinomas. Cytokeratin 10 is a heterotetramer of two type I and two type II keratins, is generally associated with keratin 1, and is seen in all suprabasal cell layers including stratum corneum.

**Immunogen:** Synthetic peptide within Human Cytokeratin 10 aa 541-584 / 584.

**Positive control:** Rat skin tissue lysate, human skin tissue lysate, mouse skin tissue lysates, Hela, human tonsil tissue, mouse skin tissue, human skin tissue, rat skin tissue, human cervical cancer tissue.

**Subcellular location:** Cytoplasm.

**Database links:** SwissProt: P13645 Human | P02535 Mouse | Q61FW6 Rat

### Recommended Dilutions:

<b>WB</b>	1:1,000-1:2,000
<b>IF-Cell</b>	1:50-1:200
<b>IF-Tissue</b>	1: 500
<b>IHC-P</b>	1:50-1:1,500

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

**Storage Instruction:** Shipped at 4°C. Store at +4°C short term (1-2 weeks). It is recommended to aliquot into single-use upon delivery. Store at -20°C long term.

**Purity:** Protein A affinity purified.

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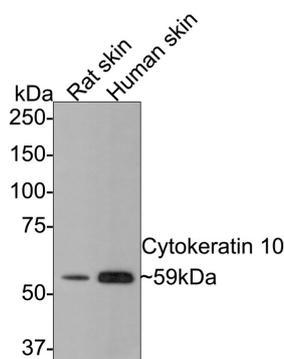
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## Images



**Fig1:** Western blot analysis of Cytokeratin 10 on different lysates with Rabbit anti-Cytokeratin 10 antibody (ET1609-75) at 1/1,000 dilution.

Lane 1: Rat skin tissue lysate

Lane 2: Human skin tissue lysate

Lysates/proteins at 20 µg/Lane.

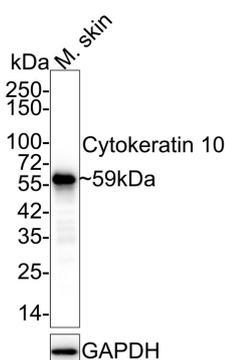
Predicted band size: 59 kDa

Observed band size: 59 kDa

Exposure time: 2 minutes;

8% 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 (ET1609-75) 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 1:300,000 dilution was used for 1 hour at room temperature.



**Fig2:** Western blot analysis of Cytokeratin 10 on mouse skin tissue lysates with Rabbit anti-Cytokeratin 10 antibody (ET1609-75) at 1/2,000 dilution.

Lysates/proteins at 20 µg/Lane.

Predicted band size: 59 kDa

Observed band size: 59 kDa

Exposure time: 24 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 (ET1609-75) 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.

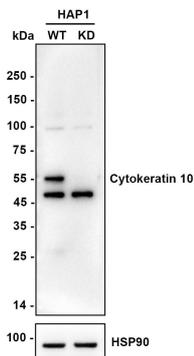
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**Fig3:** Western blot analysis of Cytokeratin 10 on different lysates with Rabbit anti-Cytokeratin 10 antibody (ET1609-75) at 1/1,000 dilution.

Lane 1: HAP1-parental cell lysate

Lane 2: HAP1-Cytokeratin 10 KD cell lysate

Lysates/proteins at 10 µg/Lane.

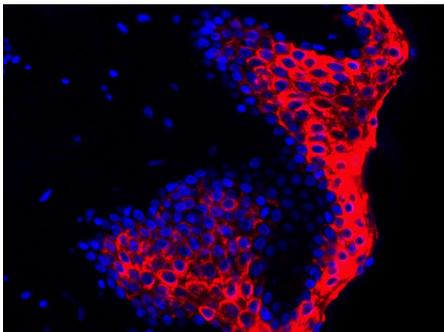
Predicted band size: 59 kDa

Observed band size: 59 kDa

Exposure time: 180 seconds; ECL: K1801;

4-20% SDS-PAGE gel.

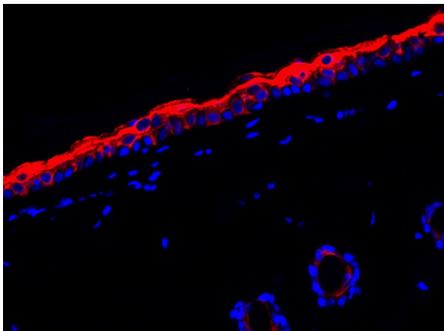
Proteins were transferred to a PVDF membrane and blocked with 5% NFDM/TBST for 1 hour at room temperature. The primary antibody (ET1609-75) at 1/1,000 dilution was used in 5% NFDM/TBST at 4°C overnight. Goat Anti-Rabbit IgG - HRP Secondary Antibody (HA1001) at 1/50,000 dilution was used for 1 hour at room temperature.



**Fig4:** Immunofluorescence analysis of paraffin-embedded human skin tissue labeling Cytokeratin 10 (ET1609-75).

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 10 (ET1609-75, red) at 1/500 dilution at +4°C 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).



**Fig5:** Immunofluorescence analysis of paraffin-embedded rat skin tissue labeling Cytokeratin 10 (ET1609-75).

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 10 (ET1609-75, red) at 1/500 dilution at +4°C 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).

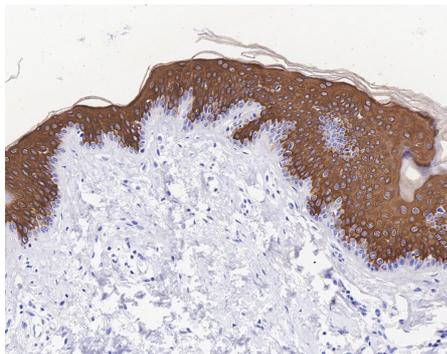
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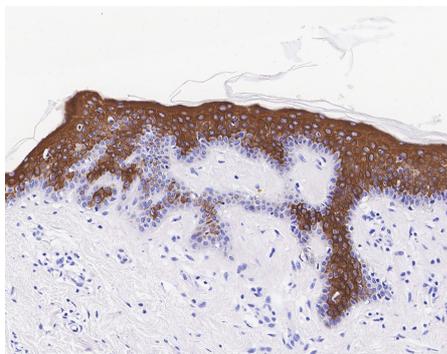
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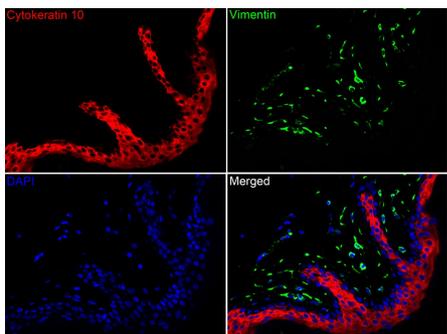
**Fig6:** Immunohistochemical analysis of paraffin-embedded human skin tissue with Rabbit anti-Cytokeratin 10 antibody (ET1609-75) at 1/1,500 dilution.

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<sub>2</sub>O and PBS, and then probed with the primary antibody (ET1609-75) 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 skin tissue with Rabbit anti-Cytokeratin 10 antibody (ET1609-75) at 1/1,500 dilution.

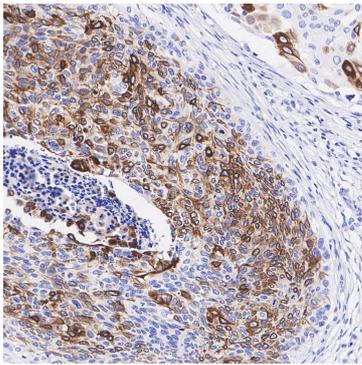
**The section was not undergone antigen retrieval.** The tissues were blocked in 1% BSA for 20 minutes at room temperature, washed with ddH<sub>2</sub>O and PBS, and then probed with the primary antibody (ET1609-75) at 1/1,500 dilution for 1 hour at room temperature. The detection was performed using an HRP conjugated compact polymer system. DAB was used as the chromogen. Tissues were counterstained with hematoxylin and mounted with DPX.



**Fig8:** Immunofluorescence analysis of paraffin-embedded human skin tissue labeling Cytokeratin 10 (ET1609-75) and Vimentin (EM0401).

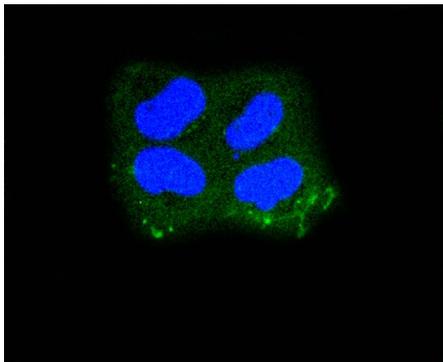
The section was pre-treated using heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0) for 20 minutes. The tissues were blocked in 10% negative goat serum for 1 hour at room temperature, washed with PBS. And then probed with the primary antibodies Cytokeratin 10 (ET1609-75, red) at 1/400 dilution and Vimentin (EM0401, green) at 1/400 dilution at +4°C overnight, washed with PBS.

Goat Anti-Rabbit IgG H&L (iFluor™ 594, HA1122) and Goat Anti-Mouse IgG H&L (iFluor™ 488, HA1125) were used as the secondary antibodies at 1/1,000 dilution. Nuclei were counterstained with DAPI (blue).

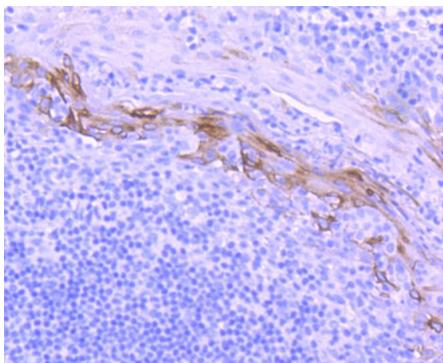


**Fig9:** Immunohistochemical analysis of paraffin-embedded human cervical cancer tissue with Rabbit anti-Cytokeratin 10 antibody (ET1609-75) at 1/1,000 dilution.

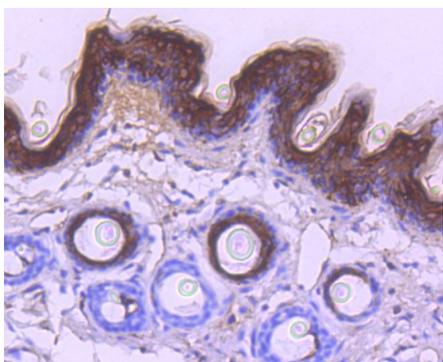
The section was pre-treated using heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0) for 20 minutes. The tissues were blocked in 1% BSA for 20 minutes at room temperature, washed with ddH<sub>2</sub>O and PBS, and then probed with the primary antibody (ET1609-75) at 1/1,000 dilution for 1 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:** ICC staining of Cytokeratin 10 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 (ET1609-75, 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).



**Fig11:** Immunohistochemical analysis of paraffin-embedded human tonsil tissue using anti-Cytokeratin 10 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<sub>2</sub>O and PBS, and then probed with the primary antibody (ET1609-75, 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.



**Fig12:** Immunohistochemical analysis of paraffin-embedded mouse skin tissue using anti-Cytokeratin 10 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<sub>2</sub>O and PBS, and then probed with the primary antibody (ET1609-75, 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.

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

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### Background References

1. Tabuchi Y et al. Development of oral epithelial cell line ROE2 with differentiation potential from transgenic rats harboring temperature-sensitive simian virus40 large T-antigen gene. *Exp Anim* 63:31-44 (2014).
2. Zhu XJ et al. BMP-FGF signaling axis mediates Wnt-induced epidermal stratification in developing mammalian skin. *PLoS Genet* 10:e1004687 (2014).

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