## Anti-Cytokeratin 17 Antibody [A2B10-R] HA601235



Product Type: Recombinant Mouse monodonal IgG1, primary antibodies

Species reactivity: Human

Applications: WB, IF-Cell, IHC-P

Molecular Wt: Predicted band size: 48 kDa

Clone number: A2B10-R

**Description:** Type I keratin involved in the formation and maintenance of various skin appendages, specifically in determining

shape and orientation of hair (By similarity). Required for the correct growth of hair follides, in particular for the persistence of the anagen (growth) state (By similarity). Modulates the function of TNF-alpha in the specific context of hair cycling. Regulates protein synthesis and epithelial cell growth through binding to the adapter protein SFN and by stimulating Akt/mTOR pathway (By similarity). Involved in tissue repair. May be a marker of basal cell differentiation in complex epithelia and therefore indicative of a certain type of epithelial "stem cells". Acts as a promoter of epithelial proliferation by acting a regulator of immune response in skin: promotes Th1/Th17-dominated immune environment contributing to the development of basaloid skin tumors (By similarity). May act as an autoantigen in the immunopathogenesis of psoriasis, with certain peptide regions being

a major target for autoreactive T-cells and hence causing their proliferation.

Immunogen: Synthetic peptide within Human Cytokeratin 17 aa 383-432 / 432.

Positive control: HeLa cell lysate, A431 cell lysate, MCF7 cell lysate, HepG2 cell lysate, HeLa, human cervical cancer tissue,

human lung adenocarcinoma tissue.

Subcellular location: Cytoplasm.

Database links: SwissProt Q04695 Human

**Recommended Dilutions:** 

WB 1:1,000 IF-Cell 1:100 IHC-P 1:1,000

Storage Buffer: PBS (pH7.4), 0.1% BSA, 40% Glycerol. Preservative: 0.05% SodiumAzide.

**Storage Instruction:** Store at +4  $^{\circ}$ C after thawing. Aliquot store at -20  $^{\circ}$ C. Avoid repeated freeze / thaw cycles.

**Purity:** Protein A affinity purified.

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**Images** 

**Fig1:** Western blot analysis of Cytokeratin 17 on different lysates with Mouse anti-Cytokeratin 17 antibody (HA601235) at 1/1,000 dilution.

Lane 1: HeLa cell lysate Lane 2: A431 cell lysate

Lane 3: MCF7 cell lysate (negative)

Lane 4: HepG2 cell lysate

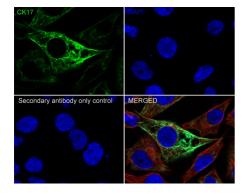
Lysates/proteins at 20 µg/Lane.

Predicted band size: 48 kDa Observed band size: 48 kDa

Exposure time: 5 seconds;

4-20% SDS-PAGE gel.

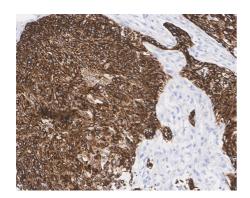
Proteins were transferred to a PVDF membrane and blocked with 5% NFDM/TBST for 1 hour at room temperature. The primary antibody (HA601235) at 1/1,000 dilution was used in 5% NFDM/TBST at 4°C overnight. Goat Anti-Mouse IgG - HRP Secondary Antibody (HA1006) at 1/50,000 dilution was used for 1 hour at room temperature.



**Fig2:** Immunocytochemistry analysis of HeLa cells labeling Cytokeratin 17 with Mouse anti-Cytokeratin 17 antibody (HA601235) at 1/100 dilution.

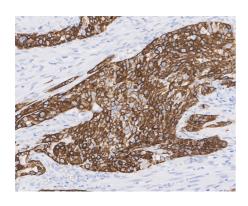
Cells were fixed in 4% paraformaldehyde for 20 minutes at room temperature, permeabilized with 0.1% Triton X-100 in PBS for 5 minutes at room temperature, then blocked with 1% BSA in 10% negative goat serum for 1 hour at room temperature. Cells were then incubated with Mouse anti-Cytokeratin 17 antibody (HA601235) at 1/100 dilution in 1% BSA in PBST overnight at 4  $^{\circ}\mathrm{C}$ . Goat Anti-Mouse IgG H&L (iFluor  $^{\mathrm{TM}}$  488, HA1125) 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 (ET1602-4, red) was stained at 1/100 dilution overnight at +4°C. Goat Anti-Rabbit IgG H&L (iFluor™ 594, HA1122) were used as the secondary antibody at 1/1,000 dilution.



**Fig3:** Immunohistochemical analysis of paraffin-embedded human cervical cancer tissue with Mouse anti-Cytokeratin 17 antibody (HA601235) 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 (HA601235) 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 lung adenocarcinoma tissue with Mouse anti-Cytokeratin 17 antibody (HA601235) 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 (HA601235) 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.

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

## **Background References**

- 1. Shen Z. et. al. HLADR B1\*04, \*07-restricted epitopes on Keratin 17 for autoreactive T cells in psoriasis. J. Dermatol. Sci. 38:25-39(2005).
- 2. Shen Z. et. al. Altered keratin 17 peptide ligands inhibit in vitro proliferation of keratinocytes and T cells isolated from patients with psoriasis. J. Am. Acad. Dermatol. 54:992-1002(2006).