Anti-Cytokeratin 17 Antibody [A2B11]

EM1901-30



Product Type: Mouse monoclonal IgG1, primary antibodies

Species reactivity: Human

Applications: WB, IHC-P, FC

Molecular Wt: Predicted band size: 48 kDa

Clone number: A2B11

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 follicles, 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: SiHa cell lysates, human skin tissue, human lung carcinoma tissue, SiHa cells.

Subcellular location: Cytoplasm.

Database links: SwissProt: Q04695 Human

Recommended Dilutions:

WB 1:500-1:2,000 IHC-P 1:50-1:200 FC 1:50-1:100

Storage Buffer: 1*PBS (pH7.4), 0.2% BSA, 50% 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 G affinity purified.

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Images



Fig1: Western blot analysis of Cytokeratin 17 on SiHa cell lysate. Proteins were transferred to a PVDF membrane and blocked with 5% BSA in PBS for 1 hour at room temperature. The primary antibody (EM1901-30, 1/500) was used in 5% BSA at room temperature for 2 hours. Goat Anti-Mouse IgG - HRP Secondary Antibody (HA1006) at 1:5,000 dilution was used for 1 hour at room temperature.

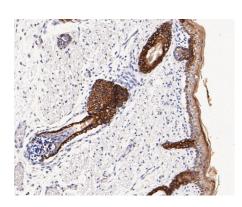


Fig2: Immunohistochemical analysis of paraffin-embedded human skin tissue using anti-Cytokeratin 17 antibody. The section was pre-treated using heat mediated antigen retrieval with Tris-EDTA buffer (pH 8.0-8.4) for 20 minutes. The tissues were blocked in 5% BSA for 30 minutes at room temperature, washed with ddH₂O and PBS, and then probed with the primary antibody (EM1901-30, 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.

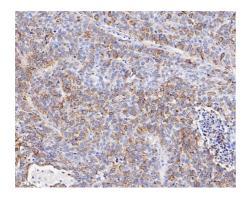


Fig3: Immunohistochemical analysis of paraffin-embedded human lung carcinoma tissue with Mouse anti-Cytokeratin 17 antibody (EM1901-30) at 1/50 dilution.

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 ddH₂O and PBS, and then probed with the primary antibody (EM1901-30) at 1/50 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.

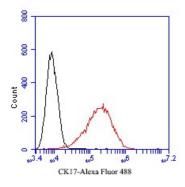


Fig4: Flow cytometric analysis of Cytokeratin 17 was done on SiHa cells. The cells were fixed, permeabilized and stained with the primary antibody (EM1901-30, 1/50) (red). After incubation of the primary antibody at room temperature for an hour, the cells were stained with a Alexa Fluor 488-conjugated Goat anti-Mouse IgG Secondary antibody at 1/1,000 dilution for 30 minutes.Unlabelled sample was used as a control (cells without incubation with primary antibody; black).

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

Background References

- 1. Shen Z. et. al. HLA DR 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).