Anti-Cytokeratin 14 Antibody [A2C12]

EM1901-31

Product Type:	Mouse monoclonal IgG1, primary antibodies
Species reactivity:	Human
Applications:	WB, IHC-P, FC
Molecular Wt:	Predicted band size: 52 kDa
Clone number:	A2C12

Description: Keratin 14 is a member of the type I keratin family of intermediate filament proteins. Keratin 14 is also known as cytokeratin-14 (CK-14) or keratin-14 (KRT14). In humans it is encoded by the KRT14 gene. Keratin 14 is usually found as a heterodimer with type II keratin 5 and form the cytoskeleton of epithelial cells. Cytokeratin 14 is found in squamous epithelial basal cells, myoepithelium, some glandular epithelia, and mesothelial cells. Anti-Cytokeratin 14 is useful for distinguishing squamous cell carcinomas from other epithelial tumors, and for classifying metaplastic breast carcinomas. The Cytokeratin 14 (IHC555) antibody is intended for qualified laboratories to qualitatively identify by light microscopy the presence of associated antigens in sections of formalin-fixed, paraffin-embedded tissue sections using IHC test methods. Use of this antibody is indicated, subsequent to clinical differential diagnoses of diseases, as an aid in the identification of squamous cell carcinomas within the context of antibody panels, the patient's clinical history and other diagnostic tests evaluated by a qualified pathologist.

Immunogen: Synthetic peptide within Human Cytokeratin 14 aa 423-472 / 472.

Positive control: A431 cell lysates, human tonsil tissue, human skin tissue, A431 cells.

Subcellular location: Cytoplasm, Nucleus.

Database links: SwissProt: P02533 Human

Recommended Dilutions:

WB	1:500-1:1,000
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: Store at +4℃ after thawing. Aliquot store at -20℃. Avoid repeated freeze / thaw cycles.

Purity: Protein G affinity purified.

Images

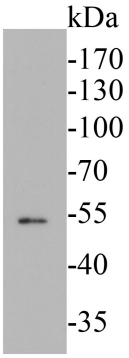

Fig1: Western blot analysis of Cytokeratin 14 on A431 cell lysates. Proteins were transferred to a PVDF membrane and blocked with 5% BSA in PBS for 1 hour at room temperature. The primary antibody (EM1901-31, 1/500) was used in 5% BSA at room temperature for 2 hours. Goat Anti-Mouse IgG - HRP Secondary Antibody (HA1006) at 1:5,000 dilution was used for 1 hour at room temperature.

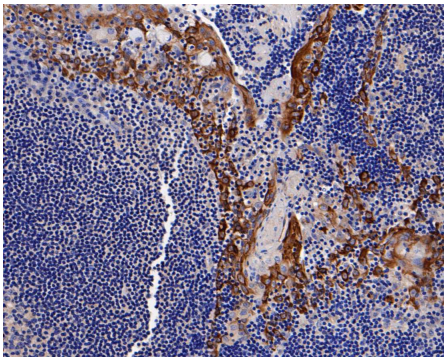

Fig2: Immunohistochemical analysis of paraffin-embedded human tonsil tissue using anti-Cytokeratin 14 antibody. The section was pre-treated using heat mediated antigen retrieval with Tris-EDTA buffer (pH 8.0-8.4) for 20 minutes.The tissues were blocked in 5% BSA for 30 minutes at room temperature, washed with ddH_2O and PBS, and then probed with the primary antibody (EM1901-31, 1/200) 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.

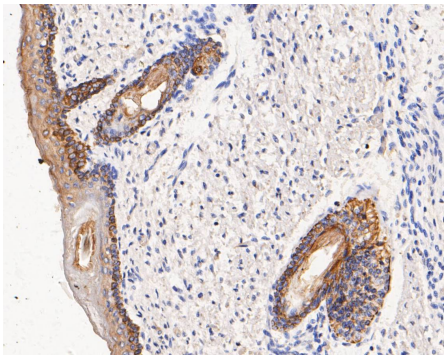

Fig3: Immunohistochemical analysis of paraffin-embedded human skin tissue using anti-Cytokeratin 14 antibody. The section was pre-treated using heat mediated antigen retrieval with Tris-EDTA buffer (pH 8.0-8.4) for 20 minutes.The tissues were blocked in 5% BSA for 30 minutes at room temperature, washed with ddH_2O and PBS, and then probed with the primary antibody (EM1901-31, 1/200) 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.

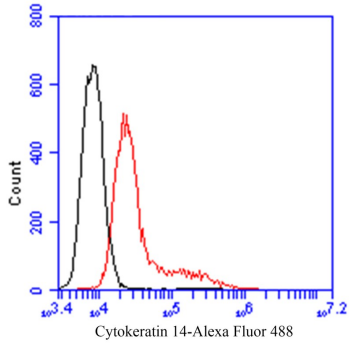

Fig4: Flow cytometric analysis of Cytokeratin 14 was done on A431 cells. The cells were fixed, permeabilized and stained with the primary antibody (EM1901-31, 1/100) (red). After incubation of the primary antibody at room temperature for an hour, the cells were stained with a Alexa Fluor 488-conjugated goat anti-Mouse IgG Secondary antibody at 1/500 dilution for 30 minutes.Unlabelled sample was used as a control (cells without incubation with primary antibody; black).

Background References

1. Bousquet O. et al. The nonhelical tail domain of keratin 14 promotes filament bundling and enhances the mechanical properties of keratin intermediate filaments in vitro. J. Cell Biol. 155:747-754(2001).
2. Schweizer J et al. "New consensus nomenclature for mammalian keratins". The Journal of Cell Biology. 174 (2): 169–74(2006).