Anti-Cytokeratin 8 Antibody

ER1803-87

Product Type:	Rabbit polyclonal IgG, primary antibodies
Species reactivity:	Human
Applications:	WB, IF-Cell, IHC-P, FC
Molecular Wt:	53/56 kDa

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. They have been found to be useful markers of tissue differentiation, which is directly applicable to the characterization of malignant tumors. Cytokeratin 8 expression is seen in epithelium and epithelium-derived tumors. The Cytokeratin 8 and 18 pair are normally expressed in simple epithelia, but not in stratified epithelial cells. Research indicates that squamous cell carcinomas derived from stratified epithelia show abnormal expression of Cytokeratin 8 and 18, although it is not known whether these proteins contribute to the malignant phenotype of the cells. Expression of Cytokeratin 8 and 18 in oral squamous cell carcinomas is an independent prognostic marker that indicates a poor prognosis. Cytokeratin 8 expression correlates with malignancy in leukoplakia and carcinomas of the head and neck; it is expressed in all non-small-cell lung cancers. Cytokeratin 8 has been shown to possess extracellular epitopes on tumor cells, which may represent valuable targets for therapy.

Immunogen: Recombinant protein within Human Cytokeratin 8 aa 380-483.

Positive control: K562, LOVO, human liver tissue, human breast cancer tissue, human kidney tissue, MCF-7.

Subcellular location: Cytoplasm. Nucleus.

Database links: SwissProt: P05787 Human

Recommended Dilutions:

WB	1:500-1:2,000
IF-Cell	1:50
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: Immunogen affinity purified.

Images

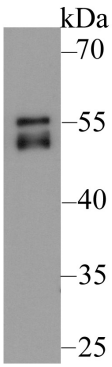

Fig1: Western blot analysis of Cytokeratin 8 on K562 lysate. Proteins were transferred to a PVDF membrane and blocked with 5% BSA in PBS for 1 hour at room temperature. The primary antibody was used at a 1:2,000 dilution in 5% BSA at room temperature for 2 hours. Goat Anti-Rabbit IgG - HRP Secondary Antibody (HA1001) at 1:5,000 dilution was used for 1 hour at room temperature.

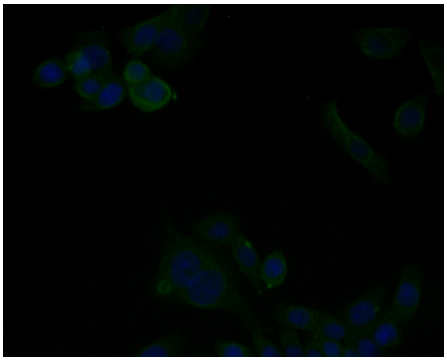

Fig2: ICC staining Cytokeratin 8 in LOVO cells (green). Formalin fixed cells were permeabilized with 0.1% Triton X-100 in TBS for 10 minutes at room temperature and blocked with 1% Blocker BSA for 15 minutes at room temperature. Cells were probed with Cytokeratin 8 at a dilution of 1:50 for 1 hour at room temperature, washed with PBS. Alexa Fluorc™ 488 Goat anti-Rabbit IgG was used as the secondary antibody at 1/100 dilution. The nuclear counter stain is DAPI (blue).

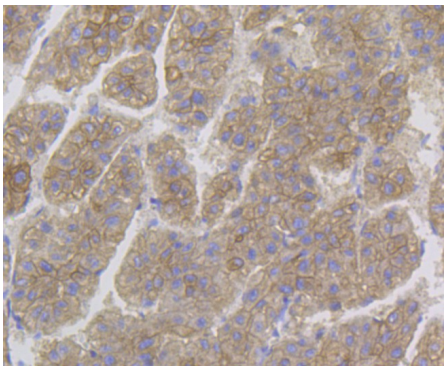

Fig3: Immunohistochemical analysis of paraffin-embedded human liver tissue using anti-Cytokeratin 8 antibody. The section was pre-treated using heat mediated antigen retrieval with Tris-EDTA buffer (pH 8.0-8.4) for 20 minutes.The tissues were blocked in 5% BSA for 30 minutes at room temperature, washed with ddH_2O and PBS, and then probed with the antibody (ER1803-87) at 1/50 dilution, for 30 minutes at room temperature and detected using an HRP conjugated compact polymer system. DAB was used as the chromogen. Counter stained with hematoxylin and mounted with DPX.

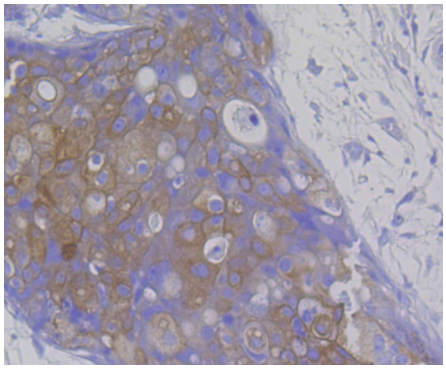

Fig4: Immunohistochemical analysis of paraffin-embedded human breast cancer tissue using anti-Cytokeratin 8 antibody. The section was pre-treated using heat mediated antigen retrieval with Tris-EDTA buffer (pH 8.0-8.4) for 20 minutes.The tissues were blocked in 5% BSA for 30 minutes at room temperature, washed with ddH_2O and PBS, and then probed with the antibody (ER1803-87) at 1/200 dilution, for 30 minutes at room temperature and detected using an HRP conjugated compact polymer system. DAB was used as the chromogen. Counter stained with hematoxylin and mounted with DPX.

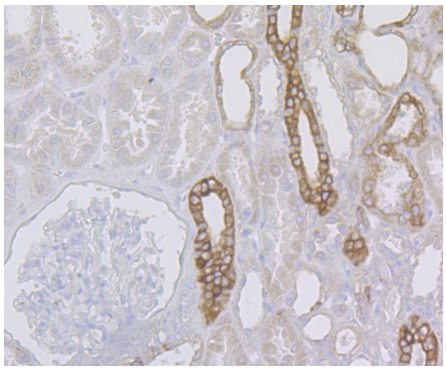

Fig5: Immunohistochemical analysis of paraffin-embedded human kidney tissue using anti-Cytokeratin 8 antibody. The section was pre-treated using heat mediated antigen retrieval with Tris-EDTA buffer (pH 8.0-8.4) for 20 minutes.The tissues were blocked in 5% BSA for 30 minutes at room temperature, washed with ddH_2O and PBS, and then probed with the antibody (ER1803-87) at 1/200 dilution, for 30 minutes at room temperature and detected using an HRP conjugated compact polymer system. DAB was used as the chromogen. Counter stained with hematoxylin and mounted with DPX.

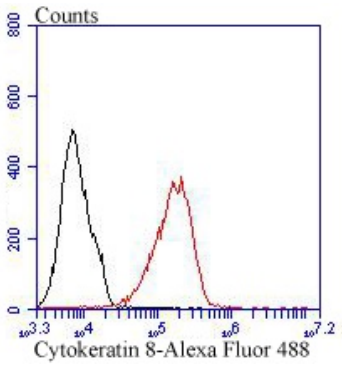

Fig6: Flow cytometric analysis of Cytokeratin 8 was done on MCF-7 cells. The cells were fixed, permeabilized and stained with Cytokeratin 8 antibody at 1/100 dilution (red) compared with an unlabelled control (cells without incubation with primary antibody; black). After incubation of the primary antibody on room temperature for an hour, the cells was stained with a Alexa Fluor™ 488-conjugated goat anti-Rabbit IgG Secondary antibody at 1/500 dilution for 30 minutes.

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

Background References

1. Stone M R et al. Specific interaction of the actin-binding domain of dystrophin with intermediate filaments containing keratin 19. Mol Biol Cell 16:4280-4293 (2005).
2. Barrett A W et al. An immunohistological study of cytokeratin 20 in human and mammalian oral epithelium. Arch Oral Biol 45:879-887 (2000).