iFluor™ 488 Conjugated Anti-Cytokeratin 8 Antibody [SU0338]

HA720132F

Product Type:	Recombinant Rabbit monoclonal IgG, primary antibodies
Species reactivity:	Human
Applications:	IF-Tissue, IF-Cell
Molecular Wt:	Predicted band size: 54 kDa
Clone number:	SU0338

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.

Conjugate:	iFluor™ 488, Ex: 491nm; Em: 516nm.
Immunogen:	Synthetic peptide within Human Cytokeratin 8 aa 321-370 / 483.
Positive control:	Human liver tissue, SK-Br-3, human breast tissue.
Subcellular location:	Nucleoplasm, Nucleus matrix, Cytoplasm.
Database links:	SwissProt: P05787 Human
Recommended Dilutions:	
IF-Tissue	1:200
IF-Cell	1:100
Storage Buffer:	Preservative: 0.02% Sodium azide Constituents: 30% Glycerol, 1% BSA, 68.98% PBS.
Storage Instruction:	Shipped at 4℃. Store at +4℃ short term (1-2 weeks). It is recommended to aliquot into single-use upon delivery. Store at -20℃ long term.
Purity:	Protein A affinity purified.

Images

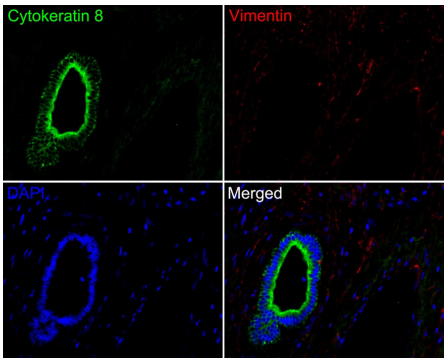

Fig1: Immunofluorescence analysis of paraffin-embedded human liver tissue labeling Cytokeratin 8 (HA720132F) and Vimentin (EM0401).

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 8 (HA720132F, green) at 1/200 dilution and Vimentin (EM0401, red) at 1/1,000 dilution overnight at 4 ℃, washed with PBS.

iFluor™ 594 conjugate-Goat anti-Mouse IgG (HA1126) was used as the secondary antibody at 1/1,000 dilution. DAPI was used as nuclear counterstain.

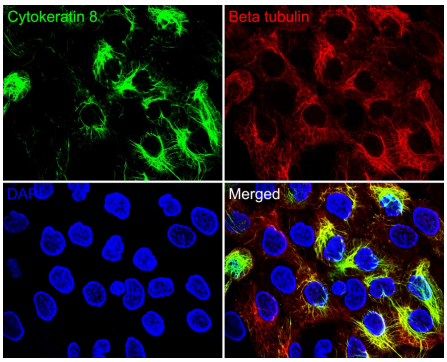

Fig2: Immunocytochemistry analysis of SK-Br-3 cells labeling Cytokeratin 8 with Rabbit anti-Cytokeratin 8 antibody (HA720132F) at 1/100 dilution.

Cells were fixed in 4% paraformaldehyde for 15 minutes, permeabilized with 0.1% Triton X-100 in PBS for 15 minutes, and then blocked with 1% BSA for 30 minutes at room temperature. Cells were then incubated with Rabbit anti-Cytokeratin 8 antibody (HA720132F) at 1/100 dilution in 1% BSA overnight at 4 ℃. Nuclear DNA was labelled in blue with DAPI.

Beta tubulin (M1305-2, red) was stained at 1/200 dilution overnight at +4℃. Goat Anti-Mouse IgG H&L (iFluor™ 594, HA1126) was used as the secondary antibody at 1/800 dilution.

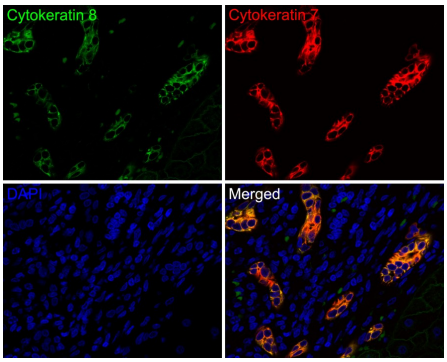

Fig3: Immunofluorescence analysis of paraffin-embedded human liver tissue labeling Cytokeratin 8 (HA720132F) and Cytokeratin 7 (HA720144F).

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 8 (HA720132F, green) at 1/200 dilution and Cytokeratin 7 (HA720144F, red) at 1/200 dilution overnight at 4 ℃, washed with PBS.

DAPI was used as nuclear counterstain.

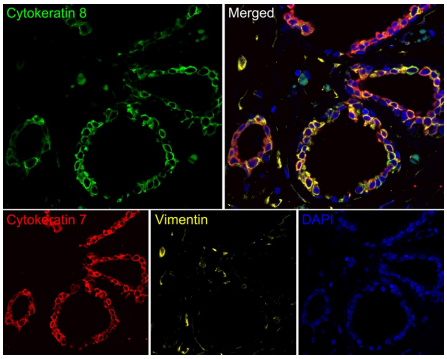

Fig4: Immunofluorescence analysis of paraffin-embedded human breast tissue labeling Cytokeratin 8 (HA720132F), Cytokeratin 7 (HA720144F) and Vimentin (EM0401).

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 8 (HA720132F, green) at 1/200 dilution, Cytokeratin 7 (HA720144F, red) at 1/50 dilution and Vimentin (EM0401, yellow) at 1/1,000 dilution overnight at 4 ℃, washed with PBS.

Alexa Fluor® 555 conjugate-Goat anti-Mouse IgG (HA1125) was used as the secondary antibody at 1/1,000 dilution. DAPI was used as nuclear counterstain.

Background References

1. Ruiz A. et al. Effect of hydroxychloroquine and characterization of autophagy in a mouse model of endometriosis. Cell Death Dis 7:e2059 (2016).
2. Xiao, L. et al. Three-dimensional epithelial and mesenchymal cell co-cultures form early tooth epithelium invagination-like structures: expression patterns of relevant molecules. J. Cell. Biochem. 113: 1875-1885(2012).