iFluor™ 488 Conjugated Anti-Cytokeratin 15 Antibody [ST04-85]

HA720136F

Product Type:	Recombinant Rabbit monoclonal IgG, primary antibodies
Species reactivity:	Human, Mouse, Rat
Applications:	IF-Tissue, IF-Cell, FC
Molecular Wt:	Predicted band size: 49 kDa
Clone number:	ST04-85

Description: Cytokeratin 15 (CK15, K15, K1CO, keratin15, type I cytoskeletal 15) is an intermediate filament (IF) type I protein that is responsible for the mechanical integrity of epithelial cells. Keratin family members are subdivided into cytokeratins and hair keratins. Most of the type I cytokeratins consist of acidic proteins which are arranged in pairs of heterotypic keratin chains, and are clustered in a region on chromosome 17q21.2. Cytokeratin 15 is a specific marker of stem cells of the hair-follicle bulge and may be a useful marker for diagnosis between basal cell carcinoma and trichoepithelioma. Trichoblastoma are benign neoplasms of follicular differentiation frequently found in nevus sebaceus. Many morphologic features are shared with nodular basal cell carcinoma, sometimes rendering a diagnosis difficult. Trichoblastoma and BCC show variable expression of Cytokeratin 15 and Cytokeratin 19, and absence of hair keratins.

Conjugate: iFluor™ 488, Ex: 491nm; Em: 516nm.

Immunogen: Synthetic peptide within Human Cytokeratin 15 aa 410-455.

Positive control: Human breast tissue, MCF-7, human skin tissue, rat skin tissue, mouse skin tissue, A431.

Subcellular location: Intermediate filament, cytosol, extracellular exosome, nucleus.

Database links: SwissProt: P19012 Human | Q61414 Mouse | Q6IFV3 Rat

Recommended Dilutions:

IF-Tissue	1:200-1:400
IF-Cell	1:50-1:100
FC	1ug/mL

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

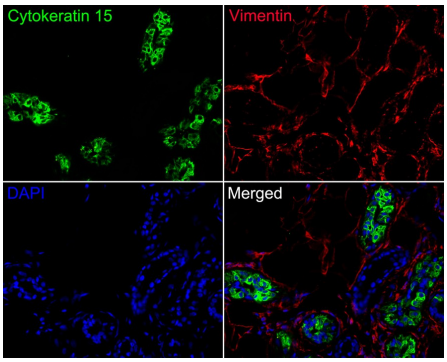

Fig1: Immunofluorescence analysis of paraffin-embedded human breast tissue labeling Cytokeratin 15 (HA720136F) and Vimentin (EM0401).

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 15 (HA720136F, green) at 1/400 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.

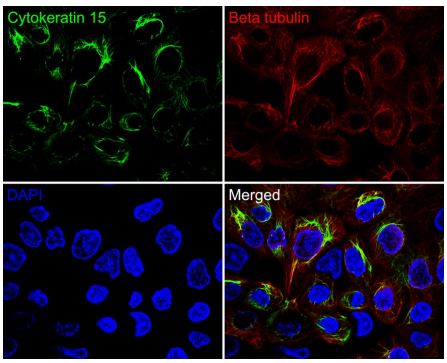

Fig2: Immunocytochemistry analysis of MCF-7 cells labeling Cytokeratin 15 with Rabbit anti-Cytokeratin 15 antibody (HA720136F) at 1/100 dilution.

Cells were fixed in 100% methanol for 10 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 15 antibody (HA720136F) 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) were used as the secondary antibody at 1/800 dilution.

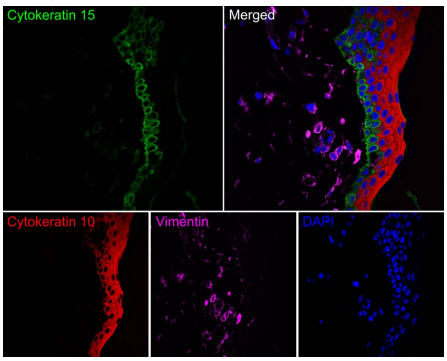

Fig3: Immunofluorescence analysis of paraffin-embedded human skin tissue labeling Cytokeratin 15 (HA720136F), Cytokeratin 10 (HA720146F) and Vimentin (EM0401).

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 15 (HA720136F, green) at 1/200 dilution, Cytokeratin 10 (HA720146F, red) at 1/50 dilution and Vimentin (EM0401, magenta) at 1/1,000 dilution overnight at 4 ℃, washed with PBS.

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

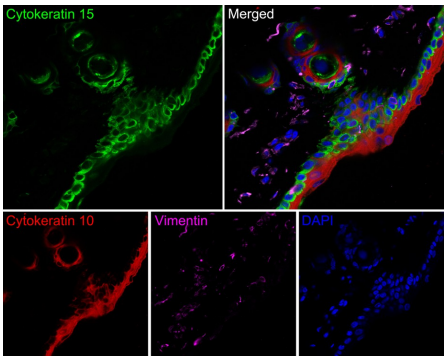

Fig4: Immunofluorescence analysis of paraffin-embedded rat skin tissue labeling Cytokeratin 15 (HA720136F), Cytokeratin 10 (HA720146F) and Vimentin (EM0401).

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 15 (HA720136F, green) at 1/200 dilution, Cytokeratin 10 (HA720146F, red) at 1/50 dilution and Vimentin (EM0401, magenta) at 1/1,000 dilution overnight at 4 ℃, washed with PBS.

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

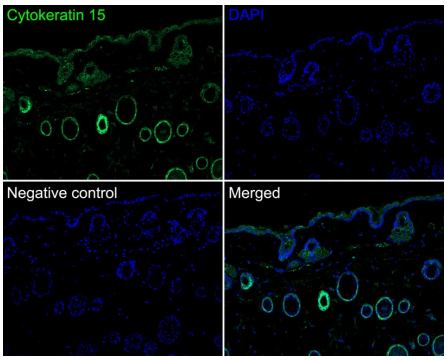

Fig5: Immunofluorescence analysis of paraffin-embedded mouse skin tissue labeling Cytokeratin 15 (HA720136F).

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 antibody Cytokeratin 15 (HA720136F, iFluor™ 488) at 1/100 dilution overnight at 4 ℃, washed with PBS. DAPI was used as nuclear counterstain.

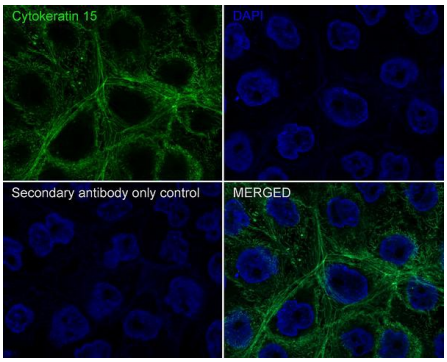

Fig6: Immunocytochemistry analysis of A431 cells labeling Cytokeratin 15 with Rabbit anti-Cytokeratin 15 antibody (HA720136F) at 1/50 dilution.

Cells were fixed in 100% methanol for 10 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 15 antibody (HA720136F) at 1/50 dilution in 1% BSA overnight at 4 ℃. Nuclear DNA was labelled in blue with DAPI.

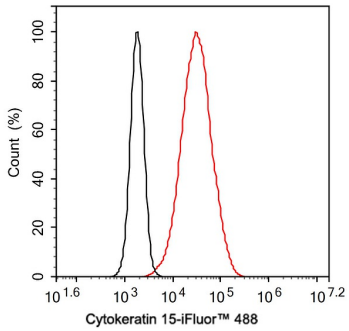

Fig7: Flow cytometric analysis of A431 cells labeling Cytokeratin 15.

Cells were fixed and permeabilized. Then incubated for 1 hour at +4℃ with Cytokeratin 15 (HA720136F, red, 1ug/ml). Unlabelled sample was used as a control (cells without incubation with primary antibody; black).

Background References

1. Pal SK. et al. The expression profiles of acidic epithelial keratins in ameloblastoma. Oral Surg Oral Med Oral Pathol Oral Radiol 115:523-31 (2013).
2. Tai G. et al. Cytokeratin 15 marks basal epithelia in developing ureters and is upregulated in a subset of urothelial cell carcinomas. PLoS One 8:e81167 (2013).