iFluor™ 488 Conjugated Anti-Cytokeratin 14 Antibody [SC65-06]

HA720135F

Product Type:	Recombinant Rabbit monoclonal IgG, primary antibodies
Species reactivity:	Mouse, Rat, Human
Applications:	IF-Tissue, IF-Cell
Molecular Wt:	Predicted band size: 52 kDa
Clone number:	SC65-06

Description: This gene encodes a member of the keratin family, the most diverse group of intermediate filaments. This gene product, a type I keratin, is usually found as a heterotetramer with two keratin 5 molecules, a type II keratin. Together they form the cytoskeleton of epithelial cells. Mutations in the genes for these keratins are associated with epidermolysis bullosa simplex. The nonhelical tail domain is involved in promoting KRT5-KRT14 filaments to self-organize into large bundles and enhances the mechanical properties involved in resilience of keratin intermediate filaments in vitro. Expressed in the corneal epithelium (at protein level). Detected in the basal layer, lowered within the more apically located layers specifically in the stratum spinosum, stratum granulosum but is not detected in stratum corneum. Strongly expressed in the outer root sheath of anagen follicles but not in the germinative matrix, inner root sheath or hair. A form of epidermolysis bullosa simplex, a group of skin fragility disorders characterized by skin blistering due to cleavage within the basal layer of keratinocytes, and erosions caused by minor mechanical trauma. There is a broad spectrum of clinical severity ranging from minor blistering on the feet, to subtypes with extracutaneous involvement and a lethal outcome. EBS1A is an autosomal dominant form characterized by generalized intraepidermal skin blistering that begins and is very prominent at birth. EBS1A may be life-threatening in the first year of life. Tendency to blistering diminishes in adolescence.

Conjugate:	iFluor™ 488, Ex: 491nm; Em: 516nm.
Immunogen:	Recombinant protein within Human Cytokeratin 14 aa 250-484.
Positive control:	Rat skin tissue, mouse skin tissue, B16F1.
Subcellular location:	Cytoplasm, Nucleus.
Database links:	SwissProt: P02533 Human | Q61781 Mouse | Q6IFV1 Rat
Recommended Dilutions:	
IF-Tissue	1:100-1:500
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

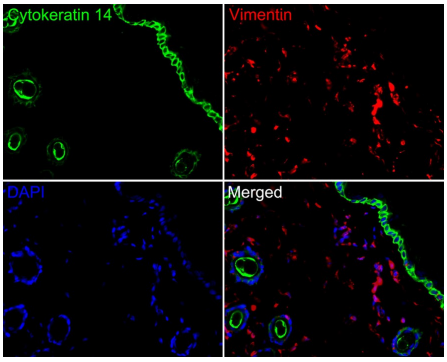

Fig1: Immunofluorescence analysis of paraffin-embedded rat skin tissue labeling Cytokeratin 14 (HA720135F) and Vimentin (EM0401).

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 14 (HA720135F, green) at 1/100 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.

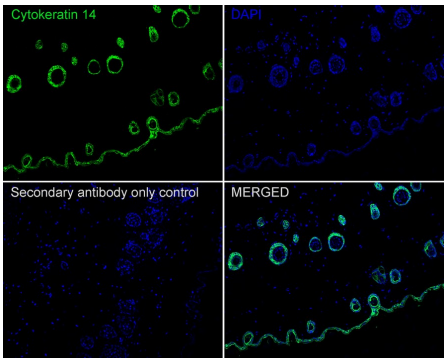

Fig2: Immunofluorescence analysis of paraffin-embedded mouse skin tissue labeling Cytokeratin 14 with Rabbit anti-Cytokeratin 14 antibody (HA720135F) at 1/500 dilution.

The section was pre-treated using heat mediated antigen retrieval with sodium citrate buffer (pH 6.0) for 2 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 (HA720135F, green) at 1/500 dilution overnight at 4 ℃, washed with PBS. Nuclei were counterstained with DAPI (blue).

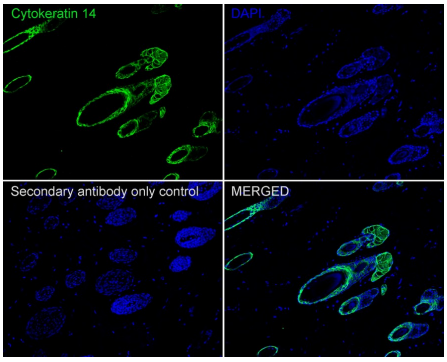

Fig3: Immunofluorescence analysis of paraffin-embedded rat skin tissue labeling Cytokeratin 14 with Rabbit anti-Cytokeratin 14 antibody (HA720135F) at 1/500 dilution.

The section was pre-treated using heat mediated antigen retrieval with sodium citrate buffer (pH 6.0) for 2 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 (HA720135F, green) at 1/500 dilution overnight at 4 ℃, washed with PBS. Nuclei were counterstained with DAPI (blue).

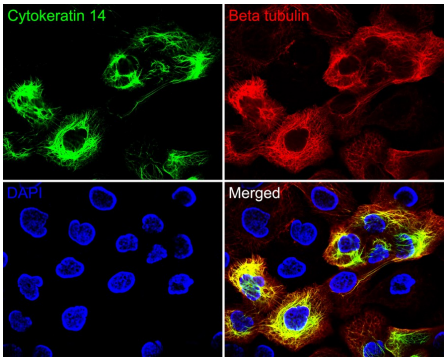

Fig4: Immunocytochemistry analysis of B16F1 cells labeling Cytokeratin 14 with Rabbit anti-Cytokeratin 14 antibody (HA720135F) at 1/100 dilution.

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 14 antibody (HA720135F) 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.

Background References

1. Pastar I. et al. Interactions of methicillin resistant Staphylococcus aureus USA300 and Pseudomonas aeruginosa in polymicrobial wound infection. PLoS One 8:e56846 (2013).
2. DeWard AD. et al. Cellular heterogeneity in the mouse esophagus implicates the presence of a nonquiescent epithelial stem cell population. Cell Rep 9:701-11 (2014).