iFluor™ 647 Conjugated Anti-Cytokeratin 14 Antibody [SC65-06]

HA720147F

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

Description: Cytokeratins comprise a diverse group of intermediate filament proteins (IFPs) that are expressed in pairs in both keratinized and non-keratinized epithelial tissue, where they constitute up to 85% of mature keratinocytes in the vertebrate epidermis. Cytokeratins play a critical role in differentiation and tissue specialization and function to maintain the overall structural integrity of epithelial cells. The a-helical coiled-coil dimers associate laterally end-to-end to form 10 nm diameter filaments. Cytokeratins are useful markers of tissue differentiation and, in addition, they aid in the characterization of malignant tumors. In Bowen's disease, the characteristic malignancy of the epidermis exhibits distinct expression patterns of Cytokeratin 14. The gene encoding human Cytokeratin 14 maps to chromosome 17q12-21. Mutations in this gene lead to epidermolysis bullosa simplex, an inheritied skin disorder characterized by skin blistering due to basal keratinocyte fragility.

Conjugate: iFluor™ 647, Ex: 656nm; Em: 670nm.

Immunogen: Recombinant protein within Human Cytokeratin 14 aa 250-484.

Positive control: A431, rat skin tissue.

Subcellular location: Cytoplasm, Nucleus.

Database links: SwissProt: P02533 Human | Q6IFV1 Rat

Recommended Dilutions:

IF-Cell	1:100
IF-Tissue	1:400

Storage Buffer: Preservative: 0.02% Sodium azide Constituents: 30% Glycerol, 1% BSA, 68.98% PBS.

Storage Instruction: Store at +4℃ after thawing. Aliquot store at -20℃. Avoid repeated freeze / thaw cycles.

Purity: Protein A affinity purified.

Images

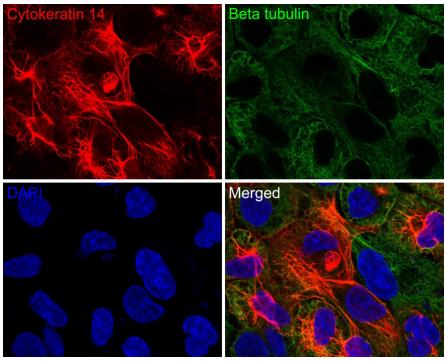

Fig1: Immunocytochemistry analysis of A431 cells labeling Cytokeratin 14 with Rabbit anti-Cytokeratin 14 antibody (HA720147F) at 1/100 dilution.

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 2% normal goat serum for 1 hour at 37℃. Cells were then incubated with Rabbit anti-Cytokeratin 14 antibody (HA720147F, red) at 1/100 dilution in 2% normal goat serum overnight at 4 ℃. Nuclear DNA was labelled in blue with DAPI.

Beta tubulin (M1305-2, green) was stained at 1/200 dilution overnight at +4℃. Goat Anti-Mouse IgG H&L (iFluor™ 488, HA1125) was used as the secondary antibody at 1/800 dilution.

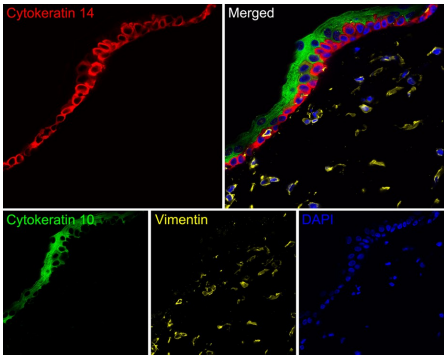

Fig2: Immunofluorescence analysis of paraffin-embedded rat skin tissue labeling Cytokeratin 14 (HA720147F), Cytokeratin 10 (HA720134F) and Vimentin (EM0401).

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 (HA720147F, red) at 1/400 dilution, Cytokeratin 10 (HA720134F, green) at 1/400 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. 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).