

## Monoclonal anti-human KRT5 antibody (clone AT12C4)

Mouse IgG<sub>2a</sub>, κ

Cat. No. IBATGA0368

**Immunogen:** Recombinant human KRT5 (1-590aa) purified from *E. coli*

**NCBI Accession No.:** NP\_000415.2.

**Isotype:** Mouse IgG<sub>2a</sub> heavy chain and κ light chain

**Clone:** Anti-human KRT5 mAb, clone AT12C4, is derived from hybridization of mouse F0 myeloma cells with spleen cells from BALB/c mice immunized with a recombinant human KRT5 protein.

**Description:** Keratin 5, also known as KRT5, K5, or CK5, is dimerized with keratin 14 and forms the intermediate filaments(IF) that make up the cytoskeleton of basal epithelial cells. This protein is involved in several diseases including epidermolysis bullosa simplex and breast and lung cancers. Keratin 5 (and K14) are expressed primarily in basal keratinocytes in the epidermis, specifically in the stratified epithelium lining the skin and digestive tract. Keratin intermediate filaments make up the cytoskeletal scaffold within epithelial cells, which contributes to the cell architecture and provides the cells with the ability to withstand mechanical, and non-mechanical, stresses. K5/K14 keratin pairs are able to undergo extensive bundling due to the non-helical tail of K15 acting as a weak cross-linker at the intermediate filament surface. This bundling increases the elasticity, and therefore the mechanical resilience, of the intermediate filaments.

**Concentration:** 1 mg/ml

**Form:** Liquid. In Phosphate-Buffered Saline (pH 7.4) with 0.02% Sodium Azide, 10% Glycerol

**Storage:** Can be stored at +4C. For long term storage, aliquot and store at -20C. Avoid repeated freezing and thawing cycles.

**Usage:** The antibody has been tested by ELISA, Western blot analysis, ICC/IF and Flow cytometry to assure specificity and reactivity. Since application varies, however, each investigation should be titrated by the reagent to obtain optimal results.

**Application:** ELISA, WB, Flow cytometry, ICC/IF

For research use only. This product is not intended or approved for human, diagnostics or veterinary use.



Manufactured for:  
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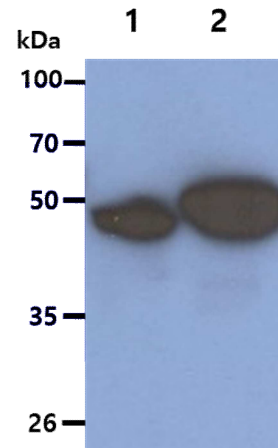
# Product information

## Western blot analysis

The Cell lysates (40ug) were resolved by SDS-PAGE, transferred to PVDF membrane and probed with anti-human KRT5 antibody (1:1000). Proteins were visualized using a goat anti-mouse secondary antibody conjugated to HRP and an ECL detection system.

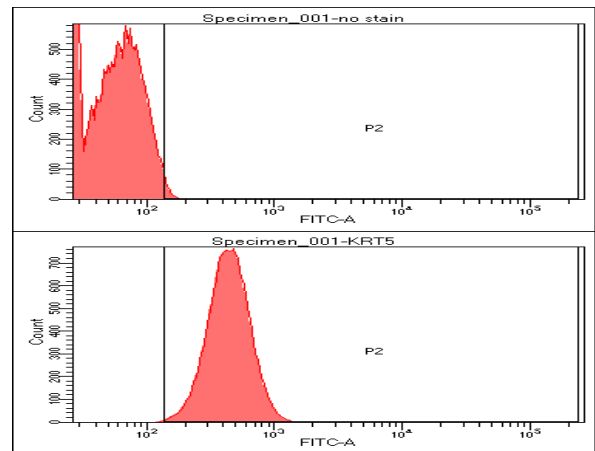
Lane 1. : HeLa cell lysate

Lane 2. : A431 cell lysate



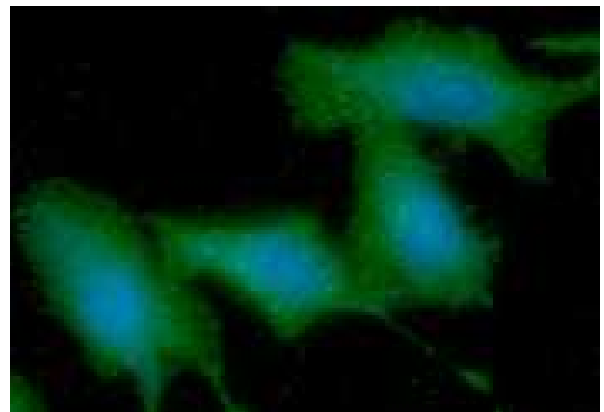
## Flow cytometry

Flow cytometry analysis of KRT5 in HeLa cell line, staining at 2-5ug for  $1 \times 10^6$  cells. The secondary antibody used goat anti-mouse IgG Alexa fluor 488 conjugate.



## ICC/IF analysis

ICC/IF analysis of KRT5 in A549 cells line, stained with DAPI (Blue) for nucleus staining and monoclonal anti-human KRT5 antibody (1:100) with goat anti-mouse IgG-Alexa fluor 488 conjugate (Green).



Lersch R., *et al.* (1988) *Mol Cell Biol.* **8(1)**: 486-493.

Eckert RL., *et al.* (1988) *Dna.* **7(5)**: 337-345.

**General references:** Chan YM., *et al.* (1994) *J Cell Sci.* **107**: 765.

Atkinson SD., *et al.* (2011) *J Invest Dermatol.* **131**: 7079-7086.

Van De Rijn M., *et al.* (2002) *Am J Pathol.* **161(6)** 1991-1996.

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