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Cytokeratin 5 Antibody
Purified Mouse Monoclonal Antibody
Catalog # AO1115a

Specification

Cytokeratin 5 Antibody - Product Information

Application	**WB, IHC, IF**
Primary Accession	P13647
Reactivity	**Human**
Host	**Mouse**
Clonality	**Monoclonal**
Isotype	**IgG1**

Description
CK5 (keratin 5) is a member of the keratin gene family. Biochemically, most members of the CK family fall into one of two classes, type I (acidic polypeptides) and type II (basic polypeptides). The type II cytokeratins consist of basic or neutral proteins which are arranged in pairs of heterotypic keratin chains coexpressed during differentiation of simple and stratified epithelial tissues. This type II cytokeratin is specifically expressed in the basal layer of the epidermis with family member KRT14. The type II cytokeratins are clustered in a region of chromosome 12q12-q13. At least one member of the acidic family and one member of the basic family is expressed in all epithelial cells. Cytokeratin 5 is expressed in normal basal cells. Mutations of the Cytokeratin5 gene (KRT5) have been shown to result in the autosomal dominant disorderepidermolysis bullosa (EB). Defects in KRT5 are a cause of epidermolysis bullosa simplex.

Immunogen
Purified recombinant fragment of CK5 expressed in E. Coli.

Formulation
Ascitic fluid containing 0.03% sodium azide.

Cytokeratin 5 Antibody - Additional Information

Gene ID 3852

Other Names
Keratin, type II cytoskeletal 5, 58 kDa cytokeratin, Cytokeratin-5, CK-5, Keratin-5, K5, Type-II keratin Kb5, KRT5

Dilution
WB~~1/500 - 1/2000
IHC~~1/500 - 1/2000
IF~~1:200~1000.

Storage
Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

Precautions
Cytokeratin 5 Antibody is for research use only and not for use in diagnostic or therapeutic

procedures.

Cytokeratin 5 Antibody - Protein Information

Name KRT5

Function
Required for the formation of keratin intermediate filaments in the basal epidermis and maintenance of the skin barrier in response to mechanical stress (By similarity). Regulates the recruitment of Langerhans cells to the epidermis, potentially by modulation of the abundance of macrophage chemotactic cytokines, macrophage inflammatory cytokines and CTNND1 localization in keratinocytes (By similarity).

Cellular Location
Cytoplasm.

Tissue Location
Expressed in corneal epithelium (at protein level) (PubMed:26758872). Expressed in keratinocytes (at protein level) (PubMed:20128788, PubMed:31302245).

Cytokeratin 5 Antibody - Protocols

Provided below are standard protocols that you may find useful for product applications.

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

Cytokeratin 5 Antibody - Images

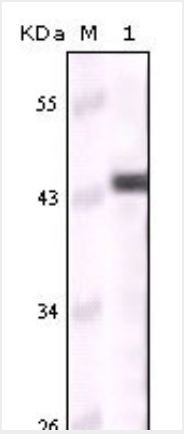


Figure 1: Western blot analysis using CK5 mouse mAb against truncated CK5 recombinant protein

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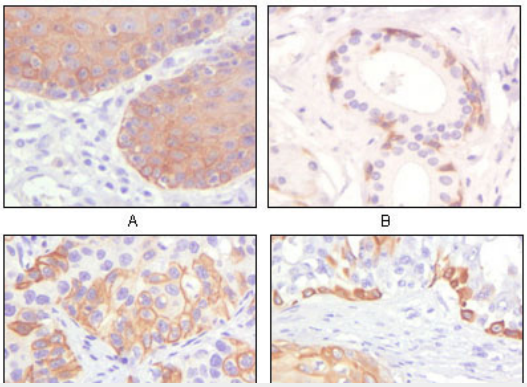


Figure 2: Immunohistochemical analysis of paraffin-embedded human esophagus epithelium (A), salivary gland basal cell (B), lung squamous cell carcinoma (C), endometrium admosquamous carcinoma (D), showing cytoplasmic and membrane localization using CK5 mouse mAb with DAB staining.

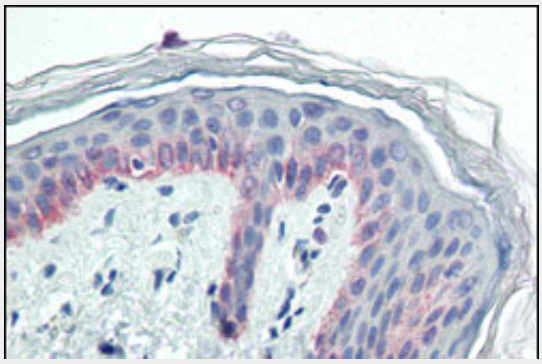


Figure 3: Immunohistochemical analysis of paraffin-embedded human skin tissues using CK5 mouse mAb.

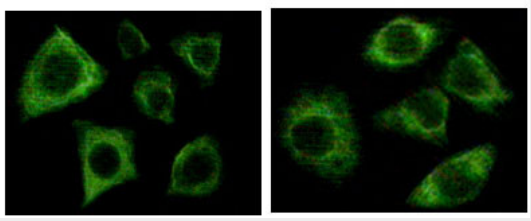


Figure 3: Immunofluorescence staining of methanol-fixed Eca-109(left) and HepG2(right) cells showing cytoplasmic localization.

Cytokeratin 5 Antibody - References

1. Canedo-Patzi AM. Leon-Bojorge B. de Ortiz-Hidalgo C. Gac Med Mex. 2006, Jan-Feb, 142(1):59-66. Spanish. 2. Leibl S. Moinfar F. Am J Surg Pathol. 2006, Apr, 30(4):450-6.

Cytokeratin 5 Antibody - Citations

- Iterative Three-Dimensional Epidermis Bioengineering and Xenografting to Assess Long-Term Regenerative Potential in Human Keratinocyte Precursor Cells.