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# CK5 Antibody

Purified Mouse Monoclonal Antibody
Catalog # AO1844a

## Product Information

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| **Application** | WB, IHC, E |
| **Primary Accession** | P13647 |
| **Reactivity** | Human |
| **Host** | Mouse |
| **Clonality** | Monoclonal |
| **Clone Names** | 10C11E6 |
| **Isotype** | IgG1 |
| **Calculated MW** | 62378 |
| **Description** | The protein encoded by this gene is a member of the keratin gene family. 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. Mutations in these genes have been associated with a complex of diseases termed epidermolysis bullosa simplex. The type II cytokeratins are clustered in a region of chromosome 12q12-q13. |
| **Immunogen** | Purified recombinant fragment of human CK5 (AA: 316-590) expressed in E. Coli. |
| **Formulation** | Purified antibody in PBS with 0.05% sodium azide |

## Additional Information

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| **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~~1/200 - 1/1000 E~~1/10000 |
| **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** | CK5 Antibody is for research use only and not for use in diagnostic or therapeutic procedures. |

## Protein Information

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| **Name** | KRT5 ( HGNC:6442) |

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| **Function** | Structural component of intermediate filaments in basal keratinocytes of stratified epithelia. Forms heteropolymers with type I partners including KRT14 and KRT15, contributing to the formation of the keratin intermediate filament network that provides mechanical stability and resilience to the basal layer of the epidermis (PubMed:1372711, PubMed:1694855). 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). |

## Background

The protein encoded by this gene is a small cellular or pericellular matrix proteoglycan that is closely related in structure to biglycan protein. The encoded protein and biglycan are thought to be the result of a gene duplication. This protein is a component of connective tissue, binds to type I collagen fibrils, and plays a role in matrix assembly. It contains one attached glycosaminoglycan chain. This protein is capable of suppressing the growth of various tumor cell lines. There are multiple alternatively spliced transcript variants known for this gene. This gene is a candidate gene for Marfan syndrome. ;

## References

1. Mol Biol Cell. 2011 Nov;22(21):4068-78. 2. Am J Surg Pathol. 2009 Nov;33(11):1615-23.

## Images

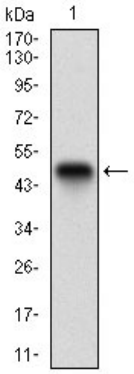



Figure 1: Western blot analysis using CK5 mAb against human CK5 recombinant protein. (Expected MW is 47.8 kDa)

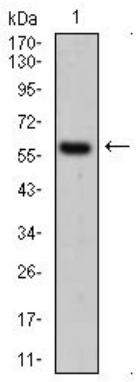



Figure 2: Western blot analysis using CK5 mouse mAb against A431 cell lysate.

Figure 3: Immunohistochemical analysis of paraffin-embedded bladder cancer tissues using CK5 mouse mAb with DAB staining.

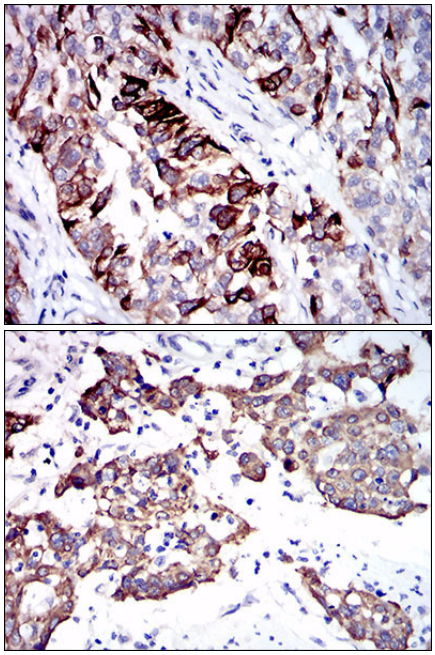


Figure 4: Immunohistochemical analysis of paraffin-embedded esophagus cancer tissues using CK5 mouse mAb with DAB staining.

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.