10320 Camino Santa Fe, Suite G
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CK5 Antibody
Purified Mouse Monoclonal Antibody
Catalog # AO1801a

Specification

CK5 Antibody - Product Information

Application	**E, WB, FC, IHC**
Primary Accession	P13647
Reactivity	**Human**
Host	**Mouse**
Clonality	**Monoclonal**
Isotype	**IgG1**
Calculated MW	**62.3kDa KDa**

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

CK5 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
E~~1/10000
WB~~1/500 - 1/2000
FC~~1/200 - 1/400
IHC~~1/200 - 1/1000

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
CK5 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

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CK5 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).

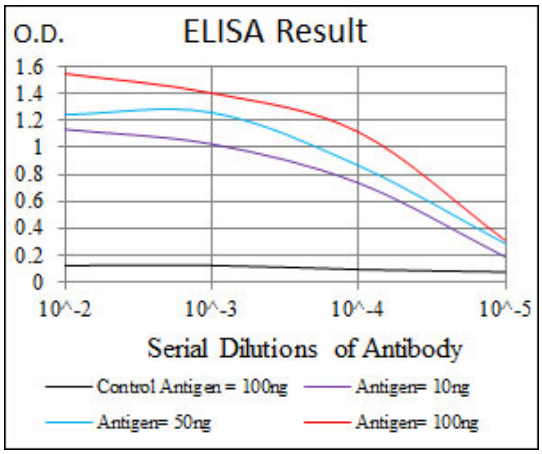
Cellular Location
Cytoplasm.

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

CK5 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



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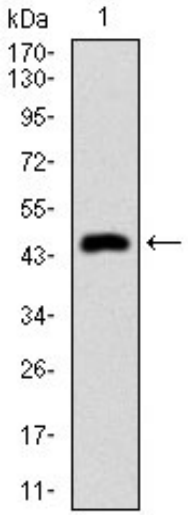


Figure 1: Western blot analysis using CK5 mAb against human CK5 recombinant protein. (Expected MW is 47.8 kDa)

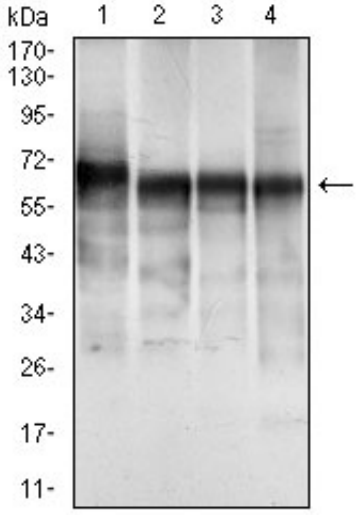


Figure 2: Western blot analysis using CK5 mouse mAb against A431 (1), MCF-7 (2), Hela (3) and HepG2 (4) cell lysate.

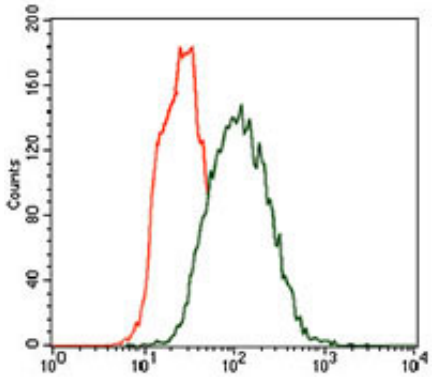


Figure 3: Flow cytometric analysis of Hela cells using CK5 mouse mAb (green) and negative control (red).

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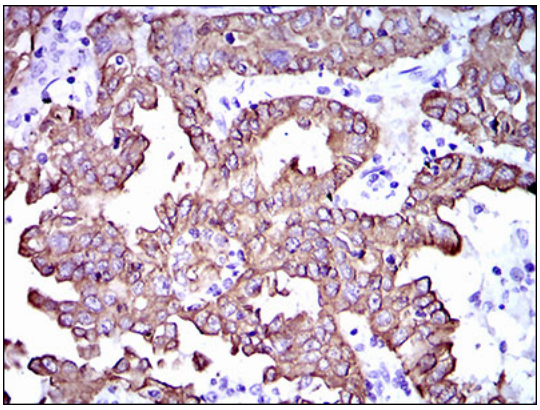


Figure 4: Immunohistochemical analysis of paraffin-embedded endometrial cancer tissues using CK5 mouse mAb with DAB staining.

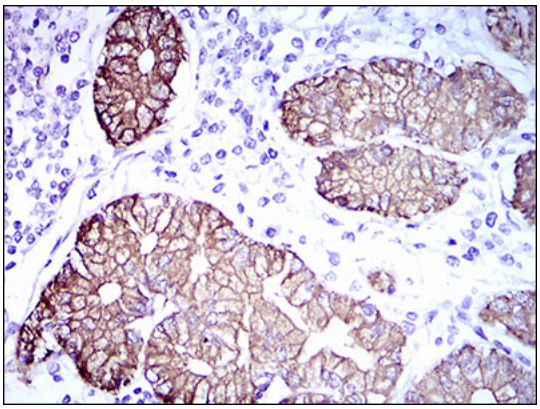


Figure 5: Immunohistochemical analysis of paraffin-embedded stomach tissues using CK5 mouse mAb with DAB staining.

CK5 Antibody - Background

This gene is a homolog of the Drosophila polyhomeotic gene, which is a member of the Polycomb group of genes. The gene product is a component of a multimeric protein complex that contains EDR2 and the vertebrate Polycomb protein BMH1. The gene product, the EDR2 protein, and the Drosophila polyhomeotic protein share 2 highly conserved domains, named homology domains I and II. These domains are involved in protein-protein interactions and may mediate heterodimerization of the protein encoded by this gene and the EDR2 protein.

CK5 Antibody - References

1.Am J Surg Pathol. 2009 Nov;33(11):1615-23. 2.J Dermatol. 2009 Aug;36(8):447-52.