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CK5 Antibody

Purified Mouse Monoclonal Antibody
Catalog # AO1801a

Product Information

Application	WB, IHC, FC, E
Primary Accession	P13647
Reactivity	Human
Host	Mouse
Clonality	Monoclonal
Clone Names	2C2B4
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

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 FC~~1/200 - 1/400 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

Name	KRT5 (HGNC:6442)

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

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.

References

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

Images

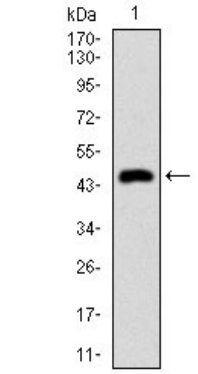


Figure 1: Western blot analysis using CK5 mAb against human CK5 recombinant protein. (Expected MW is 47.8 kDa)

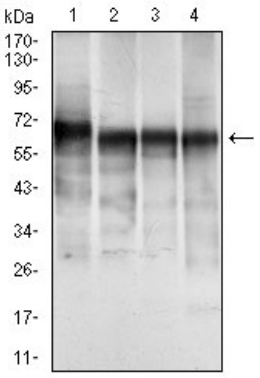
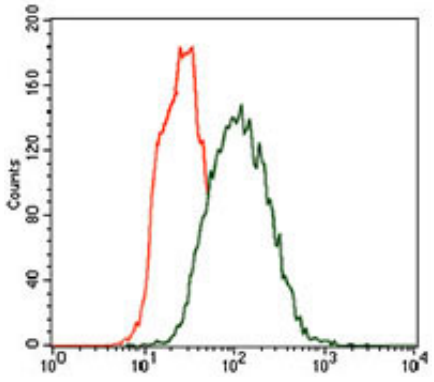


Figure 2: Western blot analysis using CK5 mouse mAb against A431 (1), MCF-7 (2), Hela (3) and HepG2 (4) cell lysate.

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



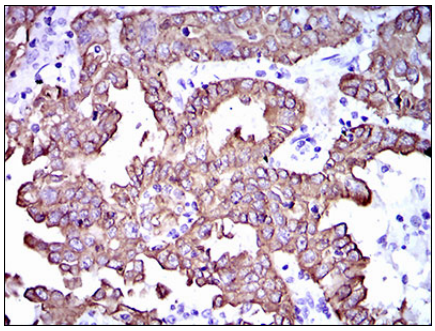


Figure 4: Immunohistochemical analysis of paraffin-embedded endometrial cancer tissues using CK5 mouse mAb with DAB staining.

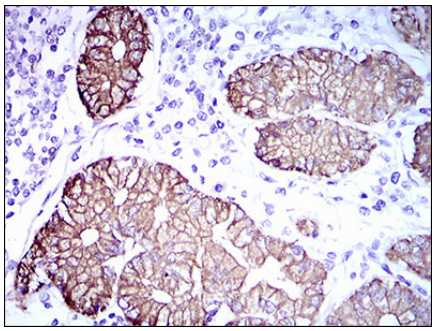


Figure 5: Immunohistochemical analysis of paraffin-embedded stomach tissues using CK5 mouse mAb with DAB staining.

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