10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

CK5 Antibody

Purified Mouse Monoclonal Antibody
Catalog # AO1844a

Product Information

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

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

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).

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

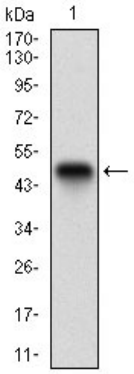

Figure 1: Western blot analysis using CK5 mAb against human CK5 recombinant protein. (Expected MW is 47.8 kDa)

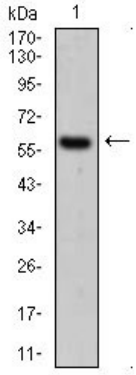

Figure 2: Western blot analysis using CK5 mouse mAb against A431 cell lysate.

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

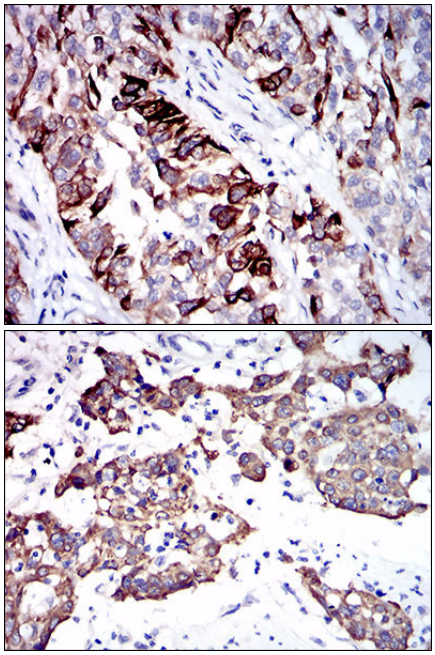

Figure 4: Immunohistochemical analysis of paraffin-embedded esophagus cancer tissues using CK5 mouse mAb with DAB staining.