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Cytokeratin (Pan) Antibody

Purified Mouse Monoclonal Antibody
Catalog # AO1116a

Product Information

Application	WB, IHC, ICC, E
Primary Accession	P13647
Reactivity	Human
Host	Mouse
Clonality	Monoclonal
Clone Names	7H8C4
Isotype	IgG1
Calculated MW	62378
Description	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. Cytokeratins comprise a diverse group of intermediate filament proteins (IFPs) that are expressed as pairs in both keratinized and non-keratinized epithelial tissue. Cytokeratins play a critical role in differentiation and tissue specialization and function to maintain the overall structural integrity of epithelial cells. Cytokeratins have been found to be useful markers of tissue differentiation which is directly applicable to the characterization of malignant tumors.
Immunogen	Purified recombinant fragment of CK5 expressed in E. Coli.
Formulation	Ascitic fluid containing 0.03% 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~~1/500 - 1/2000 ICC~~N/A E~~N/A
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 (Pan) 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).

References

1. Scope A. Schwendenwein I. Frommlet F. Vet Rec. 2006, Dec 16, 159(25): 839-43. 2. Somjen D. Katzburg S. Posner GH. et al. J Cell Biochem. 2007, Apr 15, 100(6): 1406-14.

Images

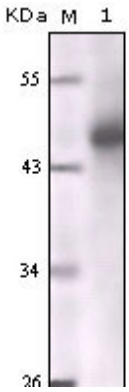


Figure 1: Western blot analysis using CK mouse mAb against truncated CK5 recombinant protein.

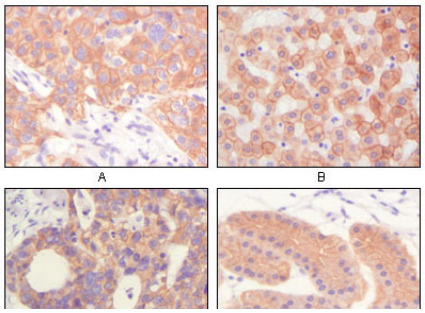


Figure 2: Immunohistochemical analysis of paraffin-embedded human lung squamous cell carcinoma (A),normal hepatocyte (B), colon adenocacinoma?, normal stomach tissue (D), showing cytoplasmic and membrane localization using CK mouse mAb with DAB staining.

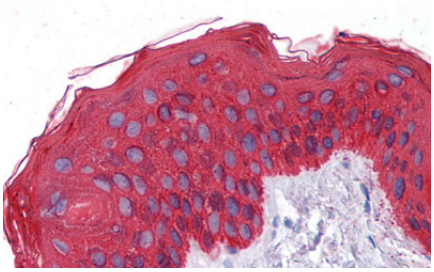


Figure 3: Immunohistochemical analysis of paraffin-embedded human Skin tissues using CK mouse mAb

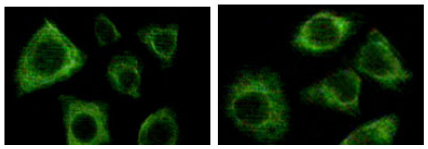


Figure 4: Immunofluorescence staining of methanol-fixed Eca-109 (left) and HepG2 (right) cells showing cytoplasmic localization.

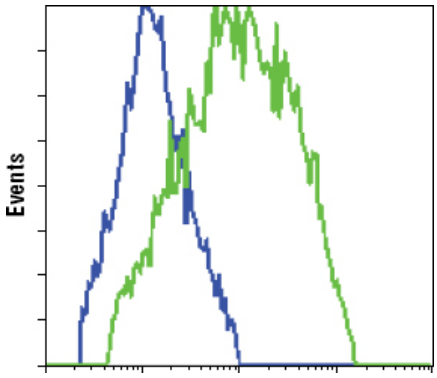


Figure 4: Flow cytometric analysis of HCC827 cells, untransfected (blue) or transfected with GFP (green), using GFP mouse mAb .

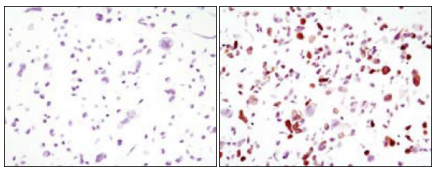


Figure 3: Immunocytochemistry analysis of HCC827 cells, untransfected(left) or transfected with GFP(right) using anti-GFP monoclonal antibody.

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