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CK17 Antibody

Purified Mouse Monoclonal Antibody
Catalog # AO1303a

Product Information

Application	WB, IHC, E
Primary Accession	Q04695
Reactivity	Human
Host	Mouse
Clonality	Monoclonal
Clone Names	3B12
Isotype	IgG2b
Calculated MW	48106
Description	CK17, also known as KRT17, it is the type I intermediate filament chain keratin 17. It is found in nail beds, hair follicles, sebaceous glands, and other epidermal appendages. Mutations in this gene lead to Jackson-Lawler type pachyonychia congenita and steatocystoma multiplex. May play a role in the formation and maintenance of various skin appendages, specifically in determining shape and orientation of hair. May be a marker of basal cell differentiation in complex epithelia and therefore indicative of a certain type of epithelial"stem cells". May act as an autoantigen in the immunopathogenesis of psoriasis, with certain peptide regions being a major target for autoreactive T-cells and hence causing their proliferation. Required for the correct growth of hair follicles, in particular for the persistence of the anagen (growth) state. Modulates the function of TNF-alpha in the specific context of hair cycling. Regulates protein synthesis and epithelial cell growth through binding to the adapter protein SFN and by stimulating Akt/mTOR pathway. Involved in tissue repair.
Immunogen	Purified recombinant fragment of CK17 expressed in E. Coli.
Formulation	Ascitic fluid containing 0.03% sodium azide.

Additional Information

Gene ID	3872
Other Names	Keratin, type I cytoskeletal 17, 39.1, Cytokeratin-17, CK-17, Keratin-17, K17, KRT17
Dilution	WB~~1/500 - 1/2000 IHC~~1/200 - 1/1000 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	CK17 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	KRT17 (HGNC:6427)
Function	Structural component of intermediate filaments in epithelial keratinocytes. Forms heteropolymers with type II keratins KRT6A and KRT6B, assembling into keratin filament networks that contribute to the structural integrity and specialized differentiation of various epithelial appendages, including nail and hair follicle (PubMed:10844551, PubMed:11886499, PubMed:16620218, PubMed:17719747, PubMed:7539673). Required for the correct growth of hair follicles, in particular for the persistence of the anagen (growth) state (By similarity). Modulates the function of TNF in the specific context of hair cycling (By similarity). Regulates protein synthesis and epithelial cell growth through binding to the adapter protein SFN and by stimulating Akt/mTOR pathway (By similarity). Involved in tissue repair (By similarity). Promotes epithelial proliferation by acting a regulator of immune response in skin: promotes Th1/Th17-dominated immune environment contributing to the development of basaloid skin tumors (By similarity). May act as an autoantigen in the immunopathogenesis of psoriasis, with certain peptide regions being a major target for autoreactive T-cells and hence causing their proliferation (PubMed:15795121, PubMed:16713453).
Cellular Location	Cytoplasm {ECO:0000250|UniProtKB:Q9QWL7}.
Tissue Location	Expressed in the outer root sheath and medulla region of hair follicle specifically from eyebrow and beard, digital pulp, nail matrix and nail bed epithelium, mucosal stratified squamous epithelia and in basal cells of oral epithelium, palmoplantar epidermis and sweat and mammary glands. Also expressed in myoepithelium of prostate, basal layer of urinary bladder, cambial cells of sebaceous gland and in exocervix (at protein level)

References

1. Am J Pathol. 2002 Dec;161(6):1991-6. 2. Br J Dermatol. 1995 Oct;133(4):501-11.

Images

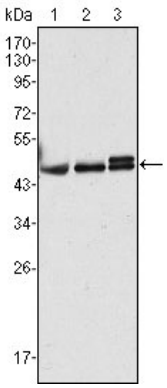
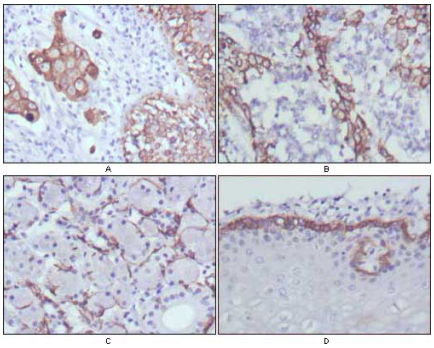


Figure 1: Western blot analysis using CK17 mouse mAb against Hela (1), MCF-7 (2) and A431 (3) cell lysate.

Figure 2: Immunohistochemical analysis of paraffin-embedded human lung cancer (A), endometrial carcinoma (B), sublingual gland (C) and esophagus (D) tissues using CK17 mouse mAb with DAB staining.



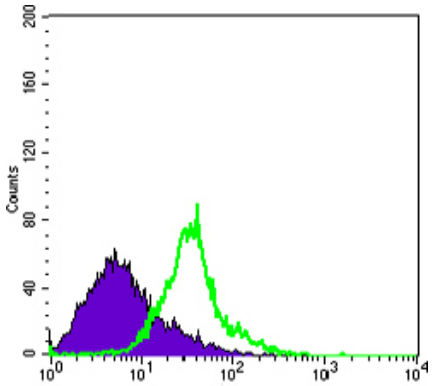


Figure 4: Flow cytometric analysis of Hela cells using WNT1 mouse mAb (green) and negative control (purple).

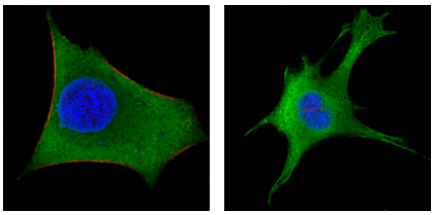


Figure 2: Confocal immunofluorescence analysis of Hela (left) and 3T3-L1 (right) cells using anti-WNT1 mAb (green). Red: Actin filaments have been labeled with DY-554 phalloidin. Blue: DRAQ5 fluorescent DNA dye.

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