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Cytokeratin 17 (KRT17) (Basal Epithelial Marker) Antibody - With BSA and Azide

Mouse Monoclonal Antibody [Clone KRT17/778]
Catalog # AH11695

Product Information

Application	IHC, IF, FC
Primary Accession	Q04695
Other Accession	3872, 2785
Reactivity	Human, Rat, Pig, Goat, Bovine
Host	Mouse
Clonality	Monoclonal
Isotype	Mouse / IgG2b, kappa
Clone Names	KRT17/778
Calculated MW	48106

Additional Information

Gene ID	3872
Other Names	Keratin, type I cytoskeletal 17, 39.1, Cytokeratin-17, CK-17, Keratin-17, K17, KRT17
Application Note	IHC~~1:100~500 IF~~1:50~200 FC~~1:10~50
Storage	Store at 2 to 8°C.Antibody is stable for 24 months.
Precautions	Cytokeratin 17 (KRT17) (Basal Epithelial Marker) Antibody - With BSA and Azide 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)

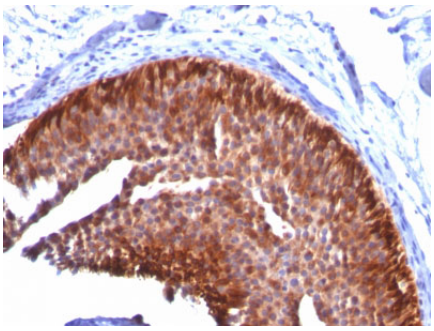
Background

Cytokeratin 17 (CK17) is normally expressed in the basal cells of complex epithelia but not in stratified or simple epithelia. Antibody to CK17 is an excellent tool to distinguish myoepithelial cells from luminal epithelium of various glands such as mammary, sweat and salivary. CK17 is expressed in epithelial cells of various origins, such as bronchial epithelial cells and skin appendages. It may be considered as epithelial stem cell marker because CK17 Ab marks basal cell differentiation. CK17 is expressed in SCLC much higher than in LADC. Eighty-five percent of the triple negative breast carcinomas immunoreact with basal cytokeratins including anti-CK17. Also important is that cases of triple negative breast carcinoma with expression of CK17 show an aggressive clinical course. The histologic differentiation of ampullary cancer, intestinal vs. pancreatobiliary, is very important for treatment. Usually anti-CK17 and anti-MUC1 immunoreactivity represents pancreatobiliary subtype whereas anti-MUC2 and anti-CDX-2 positivity defines intestinal subtype.

References

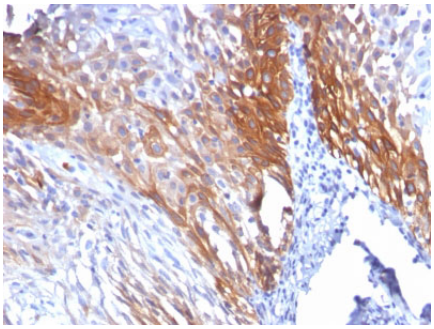
(1) Smedts et. al. Am J Pathol 141: 497, 1992. (2) Smedts et. al. Am J Pathol 140: 601, 1992.(3) Wetzels et. al. Histopathol 20: 295, 1992. |

Images



Formalin-fixed, paraffin-embedded human Bladder Carcinoma stained with CK17 Monoclonal Antibody (KRT17/778).

Formalin-fixed, paraffin-embedded human Cervical Carcinoma stained with CK17 Monoclonal Antibody (KRT17/778).



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