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Cytokeratin 19 Antibody

Purified Mouse Monoclonal Antibody
Catalog # AO1232a

Product Information

Application	WB, IHC, E
Primary Accession	P08727
Reactivity	Human
Host	Mouse
Clonality	Monoclonal
Clone Names	9H8G6
Isotype	IgG1
Calculated MW	44106
Description	Cytokeratin 19, also known as KRT19, CK19, CK19, K1CS, MGC15366. Entrez Protein NP_002267. It is a member of the keratin family. The keratins are intermediate filament proteins responsible for the structural integrity of epithelial cells and are subdivided into cytokeratins and hair keratins. The type I cytokeratins consist of acidic proteins which are arranged in pairs of heterotypic keratin chains. Unlike its related family members, this smallest known acidic cytokeratin is not paired with a basic cytokeratin in epithelial cells. It is specifically expressed in the periderm, the transiently superficial layer that envelopes the developing epidermis.
Immunogen	Purified recombinant fragment of Cytokeratin 19 (aa80-400) expressed in E. Coli.
Formulation	Ascitic fluid containing 0.03% sodium azide.

Additional Information

Gene ID	3880
Other Names	Keratin, type I cytoskeletal 19, Cytokeratin-19, CK-19, Keratin-19, K19, KRT19
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	Cytokeratin 19 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	KRT19 (HGNC:6436)
Function	Structural component of intermediate filaments in epithelial cells. Forms intermediate filaments by heterodimerizing with the type II keratin KRT8, providing mechanical integrity to epithelial cells (PubMed:16000376). Integrates into the intermediate filament network of skeletal muscle fibers alongside desmin and KRT18, contributing to force transmission (By similarity). Specifically interacts with the actin-binding domain of dystrophin, helping to link the contractile apparatus to dystrophin at the costameres of striated muscle (PubMed:16000376).
Tissue Location	Expressed in a defined zone of basal keratinocytes in the deep outer root sheath of hair follicles. Also observed in sweat gland and mammary gland ductal and secretory cells, bile ducts, gastrointestinal tract, bladder urothelium, oral epithelia, esophagus, ectocervical epithelium (at protein level). Expressed in epidermal basal cells, in nipple epidermis and a defined region of the hair follicle. Also seen in a subset of vascular wall cells in both the veins and artery of human umbilical cord, and in umbilical cord vascular smooth muscle. Observed in muscle fibers accumulating in the costameres of myoplasm at the sarcolemma in structures that contain dystrophin and spectrin.

References

1. Lung Cancer. 2007 Dec;58(3):369-75. 2. Endocr Pract. 2008 Mar;14(2):168-74.

Images

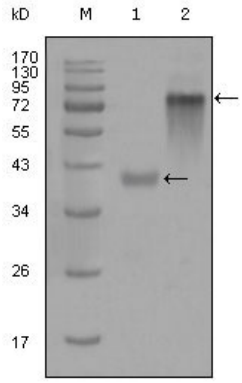


Figure 1: Western blot analysis using anti-KRT19 monoclonal antibody against truncated KRT19-His recombinant protein (1) and full-length KRT19(aa1-400)-hIgGFc transfected CHO-K1 cell lysate(2).

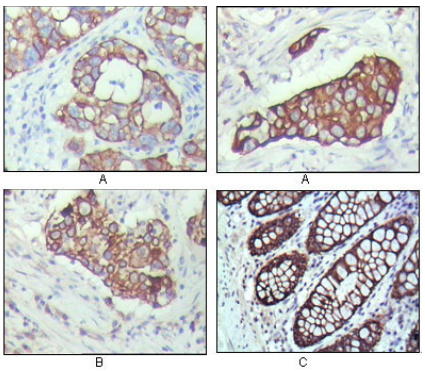


Figure 2: Immunohistochemical analysis of paraffin-embedded human breast carcinoma(A), lung cancer(B) and normal colon tissue(C), showing cytoplasmic localization with DAB staining using KRT19 mouse mAb.

Figure 2: Confocal immunofluorescence analysis of NTERA-2 cells (left) and HeLa cells (right) using Nanog mouse mAb (green). Red: Actin filaments have been labeled with DY-554 phalloidin.

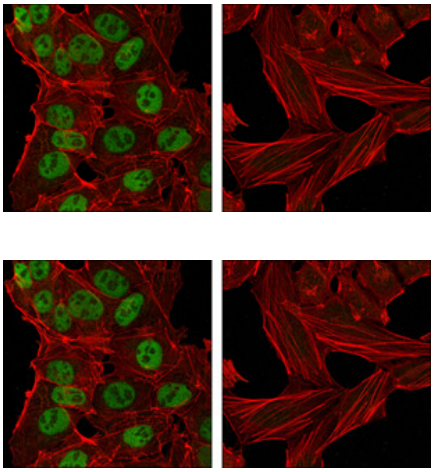


Figure 2: Confocal immunofluorescence analysis of NTERA-2 cells (left) and HeLa cells (right) using anti-Nanog Mouse mAb (green). Red: Actin filaments have been labeled with DY-554 phalloidin.

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