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CYK18 Antibody (C-term)

Mouse Monoclonal Antibody (Mab)
Catalog # AW5679

Product Information

Application	IF, WB
Primary Accession	P05783
Reactivity	Human
Host	Mouse
Clonality	Monoclonal
Calculated MW	48058
Isotype	IgG3
Antigen Source	HUMAN

Additional Information

Gene ID	3875
Antigen Region	400-430
Other Names	Keratin, type I cytoskeletal 18, Cell proliferation-inducing gene 46 protein, Cytokeratin-18, CK-18, Keratin-18, K18, KRT18, CYK18
Dilution	IF~~1:25 WB~~1:2000
Target/Specificity	This CYK18 Monoclonal antibody is generated from mouses immunized with a KLH conjugated synthetic peptide selected from the 400-430 region of human CYK18.
Format	Purified monoclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein G column, followed by dialysis against PBS.
Storage	Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.
Precautions	CYK18 Antibody (C-term) is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	KRT18 (HGNC:6430)
Synonyms	CYK18
Function	Structural component of intermediate filaments in simple epithelial cells.

	Forms intermediate filaments by heterodimerizing with the type II keratin KRT8, providing mechanical stability and resilience to epithelial cells (PubMed:15529338, PubMed:26823019). Involved in ARHGEF40-mediated actin stress fiber formation and tensional force- induced stress fiber formation and reinforcement (PubMed:26823019). Integrates into the intermediate filament network of skeletal muscle fibers alongside desmin and KRT19, contributing to force transmission (By similarity). Organization and orientation of KRT8/KRT18 filaments are responsible for the properly elongated morphology of epithelial tubules (By similarity). Also acts downstream of ROCK kinase activation as part of a positive feedback mechanism in response to cellular mechanical stress loading (PubMed:26823019). Involved in the uptake of thrombin-antithrombin complexes by hepatic cells (By similarity). When phosphorylated, plays a role in filament reorganization (PubMed:7523419, PubMed:8522591, PubMed:9298992, PubMed:9524113). Involved in the delivery of mutated CFTR to the plasma membrane (PubMed:15529338, PubMed:16424149). Involved in interleukin-6 (IL-6)- mediated barrier protection (PubMed:17213200).
Cellular Location	Nucleus matrix {ECO:0000250|UniProtKB:Q5BJY9}. Cytoplasm, perinuclear region. Nucleus, nucleolus. Cytoplasm {ECO:0000250|UniProtKB:Q5BJY9}
Tissue Location	Expressed in colon, placenta, liver and very weakly in exocervix. Increased expression observed in lymph nodes of breast carcinoma.

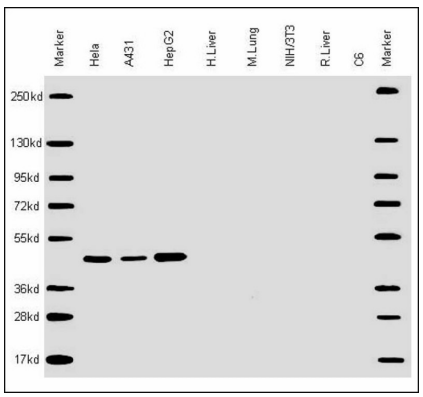
Background

Involved in the uptake of thrombin-antithrombin complexes by hepatic cells (By similarity). When phosphorylated, plays a role in filament reorganization. Involved in the delivery of mutated CFTR to the plasma membrane. Together with KRT8, is involved in interleukin-6 (IL-6)-mediated barrier protection.

References

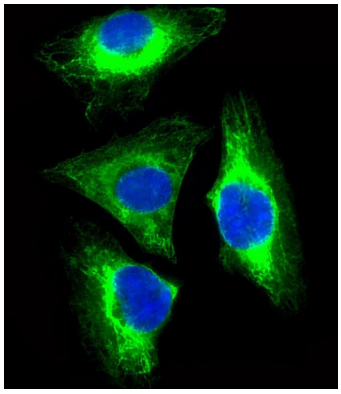
Oshima R.G., et al. Differentiation 33:61-68(1986).
Kim J.W., et al. Submitted (SEP-2004) to the EMBL/GenBank/DDBJ databases.
Kalnine N., et al. Submitted (OCT-2004) to the EMBL/GenBank/DDBJ databases.
Suzuki Y., et al. Submitted (APR-2005) to the EMBL/GenBank/DDBJ databases.
Kulesh D.A., et al. Mol. Cell. Biol. 8:1540-1550(1988).

Images



All lanes : Anti-CYK18 Antibody (C-term) at1:2000 dilution Lane 1: Hela whole cell lysate Lane 2: A431 whole cell lysate Lane 3: HepG2 whole cell lysate Lane 4: human liver lysate Lane 5: mouse lung lysate Lane 6: NIH/3T3 whole cell lysate Lane 7: Rat liver lysate Lane 8: C6 whole cell lysate Lysates/proteins at 20 µg per lane. Secondary Goat Anti-mouse IgG, (H+L),Peroxidase conjugated at 1/10000 dilution. Predicted band size : 48 kDa Blocking/Dilution buffer: 5% NFDM/TBST.

Immunofluorescent analysis of 4% paraformaldehyde-fixed, 0. 1% Triton X-100



permeabilized HeLa (human cervical epithelial adenocarcinoma cell line) cells labeling Pdx1 with AW5679 at 1/25 dilution, followed by Dylight® 488-conjugated goat anti-mouse IgG (NA166821) secondary antibody at 1/200 dilution (green). Immunofluorescence image showing cytoskeleton staining on HeLa cell line. The nuclear counter stain is DAPI (blue).

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