10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

CYK18 Antibody (C-term)

Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AX10002

Product Information

Application	WB, IHC-P, FC, IF, E
Primary Accession	P05783
Reactivity	Human
Predicted	Mouse, Rat, Bovine, Canine, Rabbit
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Clone Names	RB18746
Calculated MW	48058
Antigen Region	401-430

Additional Information

Gene ID	3875
Other Names	Keratin, type I cytoskeletal 18, Cell proliferation-inducing gene 46 protein, Cytokeratin-18, CK-18, Keratin-18, K18, KRT18, CYK18
Target/Specificity	This CYK18 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 401-430 amino acids from the C-terminal region of human CYK18.
Dilution	WB~~1:2000 IHC-P~~1:1000 FC~~1:50 IF~~1:200 E~~Use at an assay dependent concentration.
Format	Purified polyclonal antibody supplied in PBS with 0.05% (V/V) Proclin 300. This antibody is purified through a protein A column, followed by peptide affinity purification.
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.

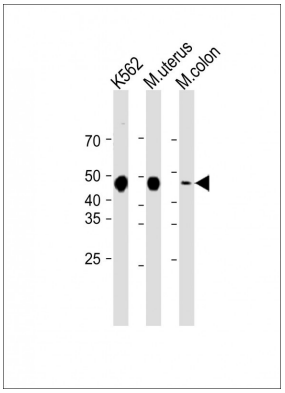
Background

KRT18 is the type I intermediate filament chain keratin 18. Keratin 18, together with its filament partner keratin 8, are perhaps the most commonly found members of the intermediate filament family. They are expressed in single layer epithelial tissues of the body. Mutations in its gene have been linked to cryptogenic cirrhosis.

References

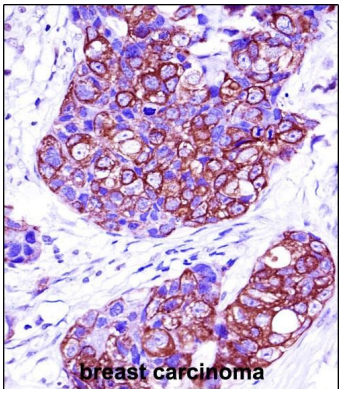
Zhang,Q., Clin. Cancer Res. 15 (10), 3557-3567 (2009) Kruse,R., Folia Histochem. Cytobiol. 47 (1), 127-130 (2009) Toivola,D.M., Hepatology 40 (2), 459-466 (2004)

Images

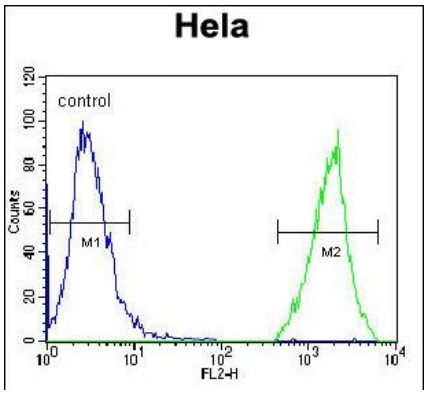


All lanes: Anti-CYK18 Antibody (C-term) at 1:2000 dilution Lane 1: K562 whole cell lysate Lane 2: Mouse uterus lysate Lane 3: Mouse colon lysate Lysates/proteins at 20 µg per lane. Secondary: Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated (ASP1615) at 1/15000 dilution. Observed band size: 48 KDa Blocking/Dilution buffer: 5% NFDM/TBST.

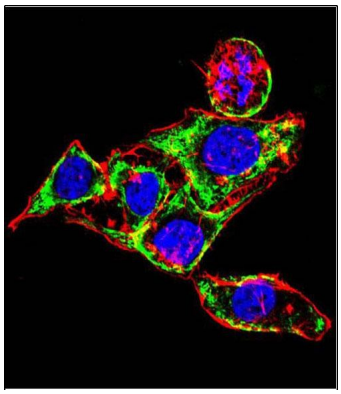
CYK18 Antibody (C-term)(Cat. #AX10002)immunohistochemistry analysis in formalin fixed and paraffin embedded human breast carcinoma



followed by peroxidase conjugation of the secondary antibody and DAB staining.This data demonstrates the use of CYK18 Antibody (C-term) for immunohistochemistry. Clinical relevance has not been evaluated.



CYK18 Antibody (C-term)(Cat. #AX10002) flow cytometric analysis of Hela cells (right histogram) compared to a negative control cell (left histogram).FITC-conjugated goat-anti-rabbit secondary antibodies were used for the analysis.



Confocal immunofluorescent analysis of CYK18 Antibody (C-term) (Cat. #AX10002)with Hela cell followed by Alexa Fluor 488-conjugated goat anti-rabbit lgG (green). Actin filaments have been labeled with Alexa Fluor 555 phalloidin (red). DAPI was used to stain the cell nuclear (blue).

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