

# CYK18 Antibody (C-term)

Purified Rabbit Polyclonal Antibody (Pab)

Catalog # AW5616

## Product Information

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<b>Application</b>	IF, FC, IHC, WB
<b>Primary Accession</b>	<a href="#">P05783</a>
<b>Reactivity</b>	Human
<b>Host</b>	Rabbit
<b>Clonality</b>	Polyclonal
<b>Calculated MW</b>	48058
<b>Isotype</b>	Rabbit IgG
<b>Antigen Source</b>	HUMAN

## Additional Information

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<b>Gene ID</b>	3875
<b>Antigen Region</b>	401-430
<b>Other Names</b>	Keratin, type I cytoskeletal 18, Cell proliferation-inducing gene 46 protein, Cytokeratin-18, CK-18, Keratin-18, K18, KRT18, CYK18
<b>Dilution</b>	IF~~1:25 FC~~1:25 IHC~~1:100~500 WB~~1:2000
<b>Target/Specificity</b>	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.
<b>Format</b>	Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein A column, followed by peptide affinity purification.
<b>Storage</b>	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.
<b>Precautions</b>	CYK18 Antibody (C-term) is for research use only and not for use in diagnostic or therapeutic procedures.

## Protein Information

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<b>Name</b>	KRT18 ( <a href="#">HGNC:6430</a> )
<b>Synonyms</b>	CYK18
<b>Function</b>	Required for the formation of KRT8/KRT18 filaments that are involved in

ARHGEF40-mediated actin stress fiber formation and tensional force-induced stress fiber formation and reinforcement (PubMed:[26823019](#)). Also acts downstream of ROCK kinase activation as part of a positive feedback mechanism in response to cellular mechanical stress loading (PubMed:[26823019](#)). Organization and orientation of KRT18 filaments are responsible for the properly elongated morphology of epithelial tubules (By similarity). 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.

#### 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.

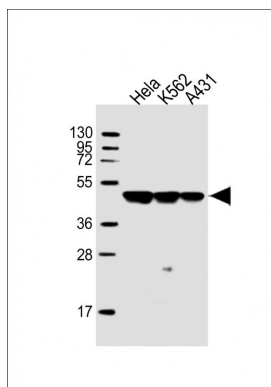
## Background

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

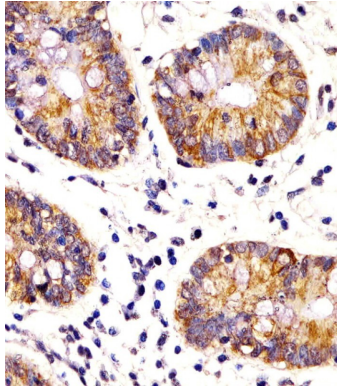
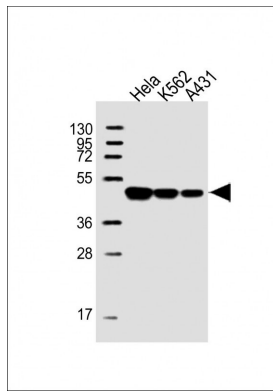
Zhang,Q., Clin. Cancer Res. 15 (10), 3557-3567 (2009)  
 Kruse,R., Folia Histochem. Cytobiol. 47 (1), 127-130 (2009)  
 Toivola,D.M., Hepatology 40 (2), 459-466 (2004)

## Images

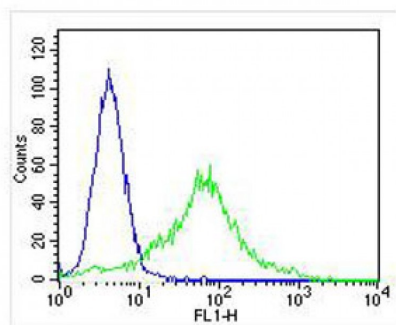


All lanes : Anti-CYK18 Antibody (C-term) at 1:2000 dilution  
 Lane 1: HeLa whole cell lysate Lane 2: K562 whole cell lysate Lane 3: A431 whole cell lysate Lysates/proteins at 20 µg per lane. Secondary Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated at 1/10000 dilution. Predicted band size : 48 kDa Blocking/Dilution buffer: 5% NFDM/TBST.

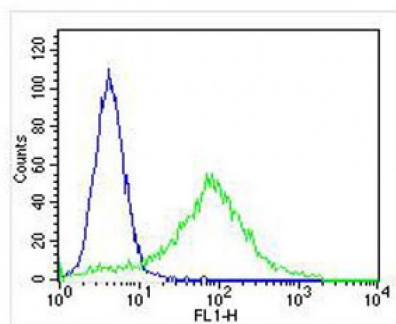
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AW5614 staining CYK18 in human colon tissue sections by Immunohistochemistry (IHC-P - paraformaldehyde-fixed, paraffin-embedded sections). Tissue was fixed with formaldehyde and blocked with 3% BSA for 0.5 hour at room temperature; antigen retrieval was by heat mediation with a citrate buffer (pH6). Samples were incubated with primary antibody (1/25) for 1 hours at 37°C. A undiluted biotinylated goat polyvalent antibody was used as the secondary antibody.

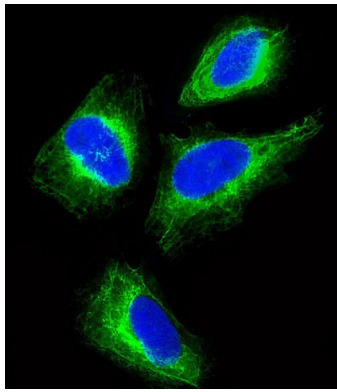


Overlay histogram showing HeLa cells stained with AW5614 (green line). The cells were fixed with 2% paraformaldehyde (10 min) and then permeabilized with 90% methanol for 10 min. The cells were then incubated in 2% bovine serum albumin to block non-specific protein-protein interactions followed by the antibody (AW5614, 1:25 dilution) for 60 min at 37°C. The secondary antibody used was Goat-Anti-Rabbit IgG, DyLight® 488 Conjugated Highly Cross-Adsorbed(OH191631) at 1/400 dilution for 40 min at 37°C. Isotype control antibody (blue line) was rabbit IgG (1µg/1x10<sup>6</sup> cells) used under the same conditions. Acquisition of >10,000 events was performed.

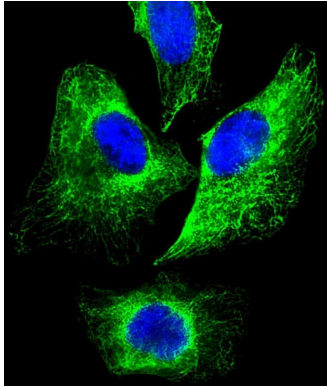


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Immunofluorescent analysis of 4% paraformaldehyde-fixed, 0.1% Triton X-100 permeabilized HeLa (human cervical epithelial adenocarcinoma cell line) cells labeling Pdx1 with AW5614 at 1/25 dilution, followed by Dylight® 488-conjugated goat anti-rabbit IgG (NK179883)



secondary antibody at 1/200 dilution (green). Immunofluorescence image showing cytoskeleton staining on HeLa cell line. The nuclear counter stain is DAPI (blue).



Immunofluorescent analysis of 4% paraformaldehyde-fixed, 0.1% Triton X-100 permeabilized HeLa (human cervical epithelial adenocarcinoma cell line) cells labeling Pdx1 with AW5614 at 1/25 dilution, followed by Dylight® 488-conjugated goat anti-rabbit IgG (NK179883) 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'.