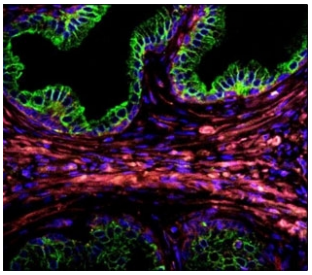
Cytokeratin 18 Rabbit Polyclonal Antibody (F50352)

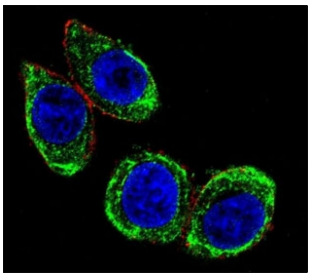
Catalog No.	Formulation	Size
F50352-0.4ML	In 1X PBS, pH 7.4, with 0.09% sodium azide	0.4 ml
F50352-0.08ML	In 1X PBS, pH 7.4, with 0.09% sodium azide	0.08 ml

Bulk quote request

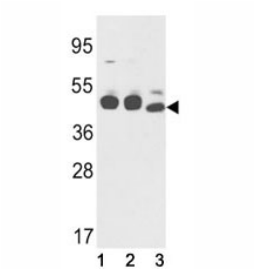
Availability	1-3 business days
Species Reactivity	Human, Mouse
Format	Purified
Host	Rabbit
Clonality	Polyclonal (rabbit origin)
Isotype	Rabbit Ig
Purity	Purified
UniProt	P05783
Applications	Western blot: 1:1000 Flow Cytometry: 1:10-1:50 Immunofluorescence: 1:10-1:50 IHC (Paraffin): 1:10-1:50
Limitations	This Cytokeratin 18 Rabbit Polyclonal Antibody is available for research use only.



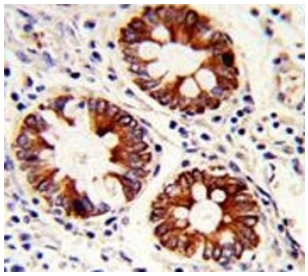
Cytokeratin 18 Rabbit Polyclonal Antibody by IF in human prostate carcinoma. Confocal immunofluorescence analysis of human prostate carcinoma tissue using Cytokeratin 18 Rabbit Polyclonal Antibody, detected with Alexa Fluor 488-conjugated goat anti-rabbit IgG in green. DAPI was used as a nuclear counterstain in blue. Green fluorescence highlights the epithelial lining of glandular structures, with prominent cytoplasmic staining surrounding the luminal spaces. The intervening stromal tissue exhibits comparatively limited green fluorescence, while red fluorescence is also visible within the surrounding tissue. The staining demonstrates the distribution of KRT18 in glandular epithelial structures of human prostate carcinoma.



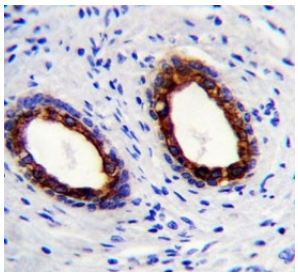
Cytokeratin 18 Rabbit Polyclonal Antibody by IF in human HeLa cells. Confocal immunofluorescence staining of human HeLa cells using Cytokeratin 18 Rabbit Polyclonal Antibody, detected with Alexa Fluor 488-conjugated goat anti-rabbit IgG in green. Actin filaments were labeled with Alexa Fluor 555-conjugated phalloidin in red, and nuclei were counterstained with DAPI in blue. Green cytoplasmic fluorescence forms a filamentous network surrounding the nuclei and extending toward the cellular periphery. Red actin staining is particularly prominent along portions of the cell margins. The distinct green and red signals illustrate the organization of keratin intermediate filaments relative to the actin cytoskeleton.



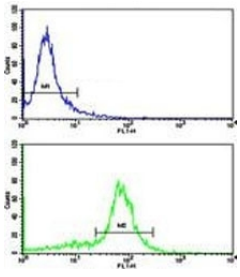
Cytokeratin 18 Rabbit Polyclonal Antibody by WB in human and mouse samples. Western blot analysis using Cytokeratin 18 Rabbit Polyclonal Antibody with K562 cell lysate in lane 1, NCI-H460 lung carcinoma cell lysate in lane 2, and mouse stomach lysate in lane 3. Prominent immunoreactive bands are visible in all three lanes, migrating at approximately 45-50 kDa, near the predicted molecular weight of KRT18 of approximately 48 kDa. The bands exhibit similar electrophoretic mobility, although their intensities vary modestly between samples. Molecular weight markers are displayed to the left of the blot. These results demonstrate antibody recognition of a protein near the expected molecular weight of KRT18 in both human and mouse samples.



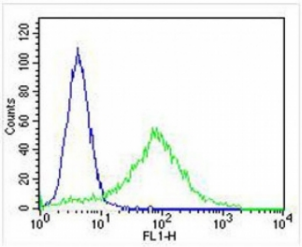
Cytokeratin 18 Rabbit Polyclonal Antibody by IHC in human colon carcinoma. Immunohistochemistry of formalin-fixed, paraffin-embedded human colon carcinoma tissue using Cytokeratin 18 Rabbit Polyclonal Antibody. Strong brown cytoplasmic immunoreactivity highlights neoplastic glandular epithelial cells arranged around irregular luminal spaces. The staining is particularly prominent along the epithelial structures, while surrounding stromal regions exhibit comparatively limited immunoreactivity. Hematoxylin counterstaining reveals nuclei in blue, providing contrast with the positively stained carcinoma cells. The observed distribution is consistent with KRT18 expression in glandular epithelial tumors and demonstrates its localization within the neoplastic epithelial compartment.



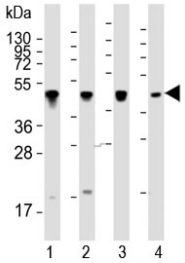
Cytokeratin 18 Rabbit Polyclonal Antibody by IHC in human prostate carcinoma. Immunohistochemistry of formalin-fixed, paraffin-embedded human prostate carcinoma tissue using Cytokeratin 18 Rabbit Polyclonal Antibody. Strong brown cytoplasmic immunoreactivity is concentrated within glandular epithelial structures surrounding open luminal spaces. The positively stained epithelial cells form distinct tubular profiles, while adjacent stromal tissue exhibits comparatively little staining. Hematoxylin counterstaining highlights nuclei in blue. The staining demonstrates the distribution of KRT18 within glandular epithelial cells and illustrates its association with epithelial differentiation in prostate carcinoma tissue.



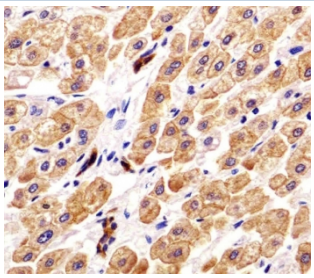
Cytokeratin 18 Rabbit Polyclonal Antibody by FACS in human WiDr cells. Flow cytometric analysis of human WiDr colorectal carcinoma cells using Cytokeratin 18 Rabbit Polyclonal Antibody, followed by FITC-conjugated goat anti-rabbit secondary antibody. The upper histogram represents the negative control, while the lower histogram represents antibody-stained cells. The stained population exhibits a pronounced rightward fluorescence shift relative to the control, with its principal distribution centered at substantially higher fluorescence intensity. The separation between the two populations demonstrates antibody-associated fluorescence in WiDr cells under the tested conditions.



Cytokeratin 18 Rabbit Polyclonal Antibody by FACS in human HeLa cells. Flow cytometric analysis of fixed and permeabilized human HeLa cells using Cytokeratin 18 Rabbit Polyclonal Antibody at a dilution of 1:25. The green histogram represents antibody-stained cells, while the blue histogram represents the negative control. A clear rightward fluorescence shift is observed in the antibody-stained population, with the green distribution extending across higher fluorescence intensities than the control. Some overlap is visible at lower fluorescence values. The results demonstrate detectable antibody-associated fluorescence in fixed and permeabilized HeLa cells, consistent with recognition of intracellular KRT18.



Cytokeratin 18 Rabbit Polyclonal Antibody by WB in human cell lysates. Western blot analysis of whole-cell lysates from NCI-H460 cells in lane 1, K562 cells in lane 2, HeLa cells in lane 3, and A431 cells in lane 4, using Cytokeratin 18 Rabbit Polyclonal Antibody at a dilution of 1:2000. Prominent immunoreactive bands migrate near 45-50 kDa in the displayed samples, consistent with the predicted molecular weight of human KRT18 of approximately 48 kDa. Band intensity varies among the cell lines, reflecting differences in the detected signal under the tested conditions. Molecular weight markers are provided alongside the lanes. The blot demonstrates recognition of a protein near the expected size of KRT18 across multiple human cell lysates.



Cytokeratin 18 Rabbit Polyclonal Antibody by IHC in human liver tissue. Immunohistochemistry of formalin-fixed, paraffin-embedded human liver tissue using Cytokeratin 18 Rabbit Polyclonal Antibody. Brown cytoplasmic immunoreactivity is distributed throughout numerous hepatocytes, highlighting their polygonal cellular profiles and the arrangement of hepatic plates. Staining intensity varies among individual cells, while nuclei remain predominantly blue following hematoxylin counterstaining. The cytoplasmic distribution is consistent with the expression of KRT18 in hepatocytes, where it forms intermediate filaments with keratin 8. Heat-induced epitope retrieval was performed using steamed citrate buffer at pH 6 before antibody incubation.

Description

Cytokeratin 18 Rabbit Polyclonal Antibody recognizes keratin 18, an acidic type I intermediate filament protein encoded by the KRT18 gene. Keratin 18 is a major component of the cytoskeleton in simple epithelial cells, where it associates with keratin 8 to form intermediate filament networks. These structures provide mechanical resilience, support intracellular organization, and help epithelial cells maintain their architecture under physiological stress. The protein is particularly abundant in glandular and single-layered epithelia, including those of the liver, pancreas, gastrointestinal tract, and respiratory system.

The KRT18 protein contains a central alpha-helical rod domain flanked by nonhelical terminal regions. Its C-terminal tail contributes to the structural characteristics of the intermediate filament protein and differs from the corresponding regions of other keratin family members. This Cytokeratin 18 Rabbit Polyclonal Antibody was generated using a peptide corresponding to amino acids 401-430 of human KRT18, within its C-terminal region. Recognition of this region provides a defined immunogen context, although the precise antibody-binding epitopes have not been independently established.

Beyond its structural functions, KRT18 participates in epithelial responses to cellular injury. Phosphorylation and other regulatory modifications influence filament organization during mitosis, mechanical stress, and changes in cellular physiology. During apoptosis, caspases cleave keratin 18 at defined sites, producing fragments that have been investigated as indicators of epithelial cell death. These processes are relevant to studies of liver injury, inflammatory disease, and responses to anticancer treatment. However, recognition of total keratin 18 does not independently establish detection of a specific cleavage product.

Keratin 18 is also frequently retained in epithelial malignancies, particularly adenocarcinomas. Its expression can help

characterize epithelial differentiation in breast, colorectal, pulmonary, pancreatic, and other carcinomas. Changes in KRT18 abundance or filament organization may accompany altered cell polarity, cytoskeletal remodeling, and tumor progression. Because keratin 18 is widely expressed, its detection should be interpreted alongside tissue morphology and complementary markers.

NSJ Bioreagents provides this antibody for research examining KRT18 expression in human and mouse models. The Cytokeratin 18 Rabbit Polyclonal Antibody supports investigation of epithelial cytoskeletal organization, tissue differentiation, and the molecular responses associated with epithelial injury.

Explore our Cytokeratin 18 Antibody KRT18/835 for additional research into KRT18 expression, epithelial differentiation, and cytoskeletal organization in normal tissues and carcinomas.

Application Notes

Titration of the Cytokeratin 18 Rabbit Polyclonal Antibody may be required due to differences in protocols and secondary/substrate sensitivity.

Immunogen

A portion of amino acids 401-430 from the human protein was used as the immunogen for this Cytokeratin-18 antibody.

Storage

Aliquot the Cytokeratin-18 antibody and store frozen at -20oC or colder. Avoid repeated freeze-thaw cycles.

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