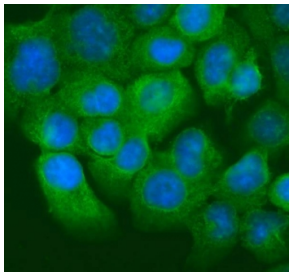
Keratin 20 Antibody for IF / Cytokeratin 20 KRT20 Immunofluorescence Antibody (RQ5632)

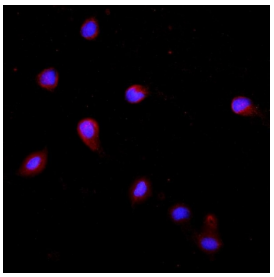
Catalog No.	Formulation	Size
RQ5632	0.5mg/ml if reconstituted with 0.2ml sterile DI water	100 ug

Bulk quote request

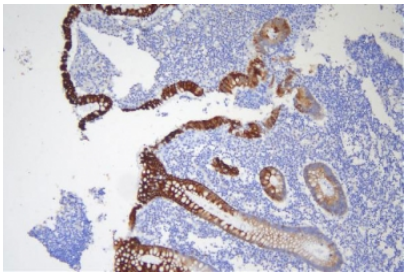
Availability	1-3 business days
Species Reactivity	Human, Mouse, Rat
Format	Antigen affinity purified
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Purity	Affinity purified
Buffer	Lyophilized from 1X PBS with 2% Trehalose and 0.025% sodium azide
UniProt	Q9D312
Localization	Cytoplasmic
Applications	Western blot: 0.5-1ug/ml Immunohistochemistry: 1-2ug/ml Immunofluorescence: 2-4ug/ml Flow cytometry: 1-3ug/million cells Direct ELISA: 0.1-0.5ug/ml
Limitations	This Keratin 20 antibody is available for research use only.



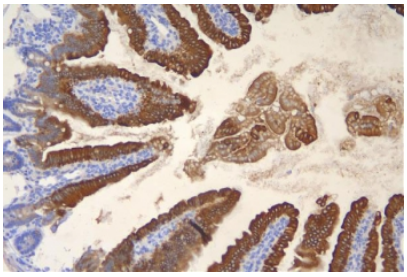
Keratin 20 Antibody for IF. Immunofluorescent staining of FFPE human A431 cells using a rabbit polyclonal Keratin 20 antibody. Green fluorescence highlights cytoplasmic Keratin 20 / Cytokeratin 20 (KRT20) intermediate filament staining in epithelial cells, while nuclei are counterstained with DAPI (blue). The staining pattern reflects the expected cytoplasmic localization of this epithelial cytoskeletal protein. HIER: steam section in pH6 citrate buffer for 20 min.



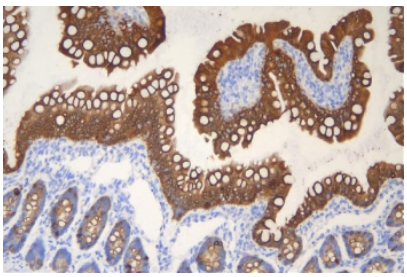
Keratin 20 Antibody for IF. Immunofluorescent staining of FFPE rat RH35 cells using a rabbit polyclonal Keratin 20 antibody. Red fluorescence highlights cytoplasmic Keratin 20 / Cytokeratin 20 (KRT20) intermediate filament staining within epithelial-derived cells, while nuclei are counterstained with DAPI (blue). The staining pattern demonstrates cytoplasmic localization consistent with intermediate filament organization of this epithelial cytoskeletal protein. HIER: steam section in pH6 citrate buffer for 20 min.



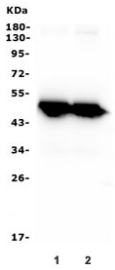
IHC staining of FFPE human appendix with Keratin 20 antibody. HIER: boil tissue sections in pH8 EDTA for 20 min and allow to cool before testing.



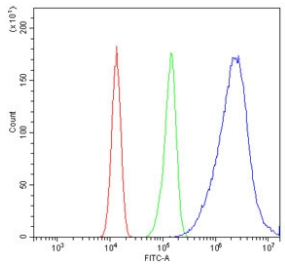
IHC staining of FFPE mouse intestine with Keratin 20 antibody. HIER: boil tissue sections in pH8 EDTA for 20 min and allow to cool before testing.



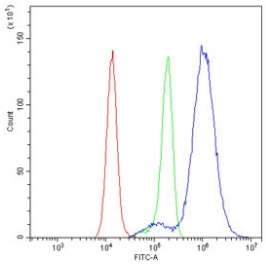
IHC staining of FFPE rat intestine with Keratin 20 antibody. HIER: boil tissue sections in pH8 EDTA for 20 min and allow to cool before testing.



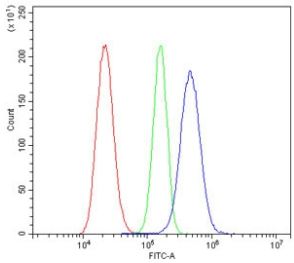
Western blot testing of 1) human Caco-2 and 2) mouse small intestine lysate with Keratin 20 antibody. Predicted molecular weight ~48 kDa.



Flow cytometry testing of human Caco-2 cells with Keratin 20 antibody at 1ug/million cells (blocked with goat sera); Red=cells alone, Green=isotype control, Blue= Keratin 20 antibody.



Flow cytometry testing of human HeLa cells with Keratin 20 antibody at 1ug/million cells (blocked with goat sera); Red=cells alone, Green=isotype control, Blue= Keratin 20 antibody.



Flow cytometry testing of rat RH35 cells with Keratin 20 antibody at 1ug/million cells (blocked with goat sera); Red=cells alone, Green=isotype control, Blue= Keratin 20 antibody.

Description

Keratin 20 (KRT20) is a type I acidic cytokeratin that belongs to the intermediate filament protein family responsible for maintaining epithelial cell structure and mechanical stability. Keratin 20 is primarily localized to the cytoplasm of epithelial cells, where it forms filament networks together with type II keratins to support cytoskeletal organization and epithelial integrity. Keratin 20 Antibody for IF enables sensitive visualization of cytokeratin filament organization and epithelial cell identity using immunofluorescence microscopy. KRT20 expression is strongly associated with gastrointestinal epithelial differentiation and is commonly detected in intestinal mucosa, gastric epithelium, and urothelial umbrella cells, making it a widely used epithelial lineage marker in research.

Keratin 20 is encoded by the KRT20 gene located on chromosome 17q21 and is part of the large keratin gene cluster that includes multiple epithelial cytokeratin family members. The Keratin 20 protein, also widely referred to as Cytokeratin 20 or CK20 in the literature, forms heterodimeric complexes with type II keratins such as keratin 8. These heterodimers polymerize to create intermediate filament structures that extend throughout the cytoplasm, providing mechanical resilience to epithelial tissues exposed to constant mechanical stress. Keratin 20 Antibody for IF is therefore useful for visualizing these filamentous cytoskeletal networks within epithelial cells when examined by immunofluorescence imaging.

Within normal tissues, Keratin 20 expression is characteristically restricted to differentiated epithelial populations, particularly intestinal epithelial cells and urothelial umbrella cells. This restricted distribution has made Cytokeratin 20 antibody reagents valuable tools for studying epithelial differentiation pathways and for distinguishing intestinal epithelial lineage cells in tissue sections and cultured models. Immunofluorescence staining using a Keratin 20 Antibody for IF typically reveals a filamentous cytoplasmic staining pattern that corresponds to the intermediate filament network distributed throughout epithelial cell cytoplasm. In polarized epithelial tissues, CK20 expression can highlight specific differentiated cell layers, particularly in gastrointestinal mucosa.

In cancer biology, Keratin 20 has significant relevance because its expression pattern is frequently retained in epithelial tumors derived from gastrointestinal and urothelial tissues. Cytokeratin 20 antibody detection is commonly used in studies of colorectal carcinoma, gastric carcinoma, pancreatic carcinoma, and bladder cancer, where KRT20 expression often reflects the differentiation state of tumor epithelial cells. Immunofluorescence imaging with Keratin 20 Antibody for IF allows researchers to visualize cytoskeletal organization and epithelial lineage markers in tumor samples, organoids, and cultured cancer cell models. The characteristic cytoplasmic filament pattern observed with Cytokeratin 20 antibody staining helps distinguish epithelial tumor cells from surrounding stromal or immune populations.

Beyond oncology research, Keratin 20 also plays a role in epithelial cell maturation and structural organization in the

intestinal tract. Studies have shown that CK20 expression increases during epithelial differentiation as cells migrate along the crypt-villus axis, highlighting its association with mature epithelial phenotypes. Keratin 20 Antibody for IF is therefore widely used in studies of intestinal epithelial development, epithelial polarity, and barrier function. Because immunofluorescence microscopy provides high spatial resolution, Cytokeratin 20 antibody staining is particularly useful for evaluating subcellular cytoskeletal architecture and epithelial cell morphology within complex tissue environments.

A rabbit polyclonal Keratin 20 Antibody for IF can be used to detect Keratin 20 protein distribution in fixed cells and tissue sections for research applications involving epithelial biology, cytoskeletal organization, and epithelial lineage identification. When applied in immunofluorescence experiments, KRT20 antibody labeling typically reveals strong cytoplasmic filament staining in epithelial cells, enabling visualization of epithelial structural networks and aiding studies of epithelial differentiation and tumor biology.

Application Notes

Optimal dilution of the Keratin 20 Antibody for IF should be determined by the researcher.

Immunogen

Recombinant mouse protein (amino acids R29-V431) was used as the immunogen for the Keratin 20 antibody.

Storage

After reconstitution, the Keratin 20 antibody can be stored for up to one month at 4oC. For long-term, aliquot and store at -20oC. Avoid repeated freezing and thawing.

Alternate Names

Cytokeratin 20 antibody, CK20 antibody, Keratin 20 antibody, KRT20 antibody, Cytokeratin-20 antibody

Copyright © NSJ Bioreagents. All rights reserved.