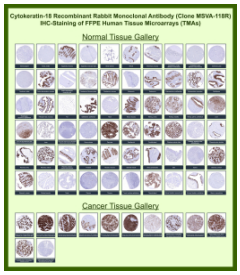
KRT18 Antibody for IHC / Cytokeratin 18 Immunohistochemistry Antibody - Simple Epithelial Marker [clone MSVA-118R] (V5934)

Catalog No.	Formulation	Size
V5934-100UG	Antibody in 1X PBS with 0.05% BSA, 0.05% sodium azide	100 ug
V5934-20UG	Antibody in 1X PBS with 0.05% BSA, 0.05% sodium azide	20 ug

Recombinant RABBIT MONOCLONAL

Bulk quote request

Species Reactivity	Human
Format	Purified
Host	Rabbit
Clonality	Recombinant Rabbit Monoclonal
Isotype	Rabbit IgG, kappa
Clone Name	MSVA-118R
UniProt	P05783
Localization	Cytoplasm, Nucleolus, Nucleus, Perinuclear region
Applications	Immunohistochemistry (FFPE) : 1:100-1:200
Limitations	This KRT18 Antibody for IHC / Cytokeratin 18 Immunohistochemistry Antibody - Simple Epithelial Marker is available for research use only.



KRT18 Antibody for IHC Tissue Microarray (TMA). Immunohistochemistry analysis of Keratin 18 KRT18, also known as Cytokeratin 18, in formalin-fixed paraffin-embedded human normal and cancer tissue microarrays using recombinant rabbit monoclonal KRT18 antibody clone MSVA-118R. Tissue microarray (TMA) staining with HRP-DAB brown chromogen demonstrates strong cytoplasmic localization in simple and glandular epithelial cell populations, including gastrointestinal mucosa, pancreatic acini and ducts, renal tubular epithelium, hepatocytes, bronchial epithelium, endometrial glands, and prostatic epithelium, while mesenchymal and stromal tissues show minimal to no signal. Within tumor tissue microarrays, robust staining is observed in carcinomas with glandular differentiation, while non-epithelial malignancies show limited or absent staining. Evaluation across large TMA panels enables direct comparison of KRT18 expression across diverse tissue types under standardized conditions. The observed staining patterns support its role as a simple epithelial marker and align with reported KRT18 expression profiles in publicly available datasets including the Human Protein Atlas.

Description

Cytokeratin 18 (KRT18) is a type I intermediate filament protein expressed predominantly in simple epithelial cells, where it plays a central role in maintaining cytoskeletal integrity and supporting cellular organization in glandular and parenchymal tissues. KRT18 Antibody for IHC is widely used to detect Cytokeratin 18 expression in formalin-fixed, paraffin-embedded tissues, enabling precise identification of epithelial lineage and detailed assessment of tissue architecture. KRT18 antibody, also referred to as Cytokeratin 18 antibody or CK18 antibody, is a well-established marker of simple epithelial and glandular cell populations.

KRT18 is typically co-expressed with keratin 8 in simple epithelia, including liver, kidney, gastrointestinal tract, and a wide range of secretory and ductal tissues. Its expression is largely absent in stratified squamous epithelia, providing clear contrast with keratins such as Cytokeratin 14 and Cytokeratin 13. This distinct distribution makes Cytokeratin 18 particularly valuable for distinguishing glandular and parenchymal epithelial cells from stratified epithelial compartments and non-epithelial tissues.

This KRT18 Antibody for IHC incorporates clone MSVA-118R, a recombinant rabbit monoclonal antibody evaluated using tissue microarray (TMA) analysis across an extensive panel of normal and cancer tissues. TMA data demonstrate strong, uniform cytoplasmic staining in simple epithelial cells across multiple organ systems, including hepatocytes, renal tubular epithelium, and gastrointestinal glandular epithelium, with minimal background in stromal and non-epithelial compartments. The use of large-scale TMA panels enables direct, side-by-side comparison of KRT18 expression across diverse tissues under standardized conditions, strengthening confidence in staining specificity and reproducibility.

In immunohistochemistry, Cytokeratin 18 antibody staining appears as robust cytoplasmic HRP-DAB brown signal in glandular and simple epithelial cells, with clear delineation of epithelial structures such as ducts, tubules, and parenchymal cell layers. TMA-based cancer analysis further demonstrates strong and often diffuse expression in a broad range of epithelial-derived tumors, particularly adenocarcinomas, where staining highlights tumor epithelial cells and supports classification of epithelial lineage. In contrast, most squamous cell carcinomas, mesenchymal tumors, and non-epithelial tissues show limited or absent staining, providing strong diagnostic contrast.

The detection of KRT18 is particularly informative in studies of tumor classification, epithelial differentiation, and disease progression, as its expression reflects epithelial origin and glandular differentiation status. Alterations in staining patterns can provide insight into epithelial transformation, tumor heterogeneity, and lineage identity across cancer types.

Overall, Cytokeratin 18 antibody reagents provide reliable and specific detection of KRT18 in simple epithelial cells, supporting immunohistochemical analysis of epithelial lineage, glandular differentiation, and disease-associated alterations in tissue organization, with strong validation across tissue microarray datasets.

This antibody is part of a broader Cytokeratin 18 antibody collection supporting epithelial lineage identification and glandular tissue analysis across multiple research applications.

This antibody is also part of a broader collection of IHC antibodies validated by tissue microarray analysis, supporting consistent staining across normal and cancer tissues.

Application Notes

1. Optimal dilution of the KRT18 Antibody for IHC / Cytokeratin 18 Immunohistochemistry Antibody - Simple Epithelial Marker should be determined by the researcher.

2. This KRT18/Keratin 18 antibody is recombinantly produced by expression in human HEK293 cells.

3. Manual Protocol: Freshly cut sections should be used (less than 10 days between cutting and staining). Heat-induced antigen retrieval for 5 minutes in an autoclave at 121oC in pH 7.8 Target Retrieval Solution buffer. Apply the antibody at a dilution of 1:150 at 37oC for 60 minutes. Visualization of bound antibody by the EnVision Kit (Dako, Agilent) according to

the manufacturer's directions.

Immunogen

Recombinant human full-length KRT18 protein was used as the immunogen for the KRT18 for IHC/Keratin 18 antibody.

Storage

KRT18/Keratin 18 antibody with sodium azide - store at 2 to 8oC; antibody without sodium azide - store at -20 to -80oC.

Alternate Names

KRT18 antibody, Cytokeratin 18 IHC antibody, CK18 antibody, Simple epithelial keratin antibody