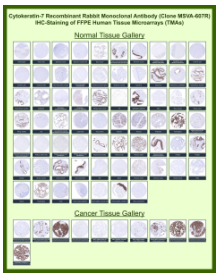
Keratin 7 Antibody / KRT7 [clone MSVA-607R] (V5927)

Catalog No.	Formulation	Size
V5927-100UG	Antibody in 1X PBS with 0.05% BSA, 0.05% sodium azide	100 ug
V5927-20UG	Antibody in 1X PBS with 0.05% BSA, 0.05% sodium azide	20 ug

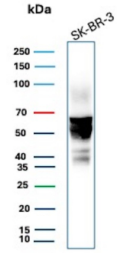
Recombinant RABBIT MONOCLONAL

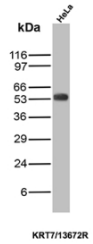
Bulk quote request

Species Reactivity	Human
Format	Purified
Host	Rabbit
Clonality	Recombinant Rabbit Monoclonal
Isotype	Rabbit IgG, kappa
Clone Name	MSVA-607R
Purity	Protein A affinity
UniProt	P08729
Localization	Cytoplasm
Applications	Immunohistochemistry (FFPE) : 1:100-1:200 Western Blot : 1:50-1:100
Limitations	This Keratin 7/KRT7 antibody is available for research use only.



Immunohistochemistry analysis of Keratin 7 / KRT7 antibody (clone MSVA-607R) in FFPE human tissue microarrays. Normal and cancer tissue cores show cytoplasmic brown chromogenic staining in epithelial cells consistent with Keratin 7-positive glandular and ductal epithelium, while non-epithelial tissues show minimal staining, in agreement with known KRT7 expression patterns and Human Protein Atlas data.





Description

Keratin 7 antibody targets Keratin 7, a type II cytoskeletal intermediate filament protein encoded by the KRT7 gene and widely referred to as Cytokeratin 7 or CK7. Keratin 7 is a core structural component of simple and glandular epithelial cells, where it contributes to cytoskeletal organization, epithelial polarity, and resistance to mechanical stress. Within cells, Keratin 7 localizes to the cytoplasm and assembles into intermediate filaments through heterodimerization with type I keratins, forming a supportive filament network essential for epithelial integrity.

Keratin 7 expression is characteristic of a broad range of epithelial tissues, including the respiratory epithelium, biliary tract, pancreatic ducts, breast ducts, endometrium, ovary, and urothelium. In contrast, Keratin 7 is typically absent from normal colorectal epithelium and stratified squamous epithelia. This sharply defined expression pattern has established Keratin 7 antibody reagents as valuable tools for investigating epithelial lineage, tissue organization, and cellular differentiation in research-focused histological and molecular studies.

In epithelial-derived malignancies, Keratin 7 expression reflects underlying differentiation programs and tumor phenotype. CK7-positive staining is frequently observed in carcinomas of the lung, breast, ovary, endometrium, biliary system, and urinary tract, while many gastrointestinal adenocarcinomas lack Keratin 7 expression. These lineage-associated patterns make Keratin 7 antibody detection useful for examining epithelial tumor heterogeneity and studying mechanisms of epithelial transformation and disease progression.

Beyond its role as a lineage marker, Keratin 7 participates in dynamic cytoskeletal remodeling during epithelial development, regeneration, and stress responses. Altered KRT7 expression has been associated with glandular metaplasia, epithelial plasticity, and adaptive responses to injury or inflammation. Antibodies recognizing Keratin 7 therefore provide reliable tools for studying epithelial biology, cytoskeletal reorganization, and disease-associated changes in epithelial differentiation across diverse research applications.

Application Notes

1. Optimal dilution of the Keratin 7/KRT7 antibody should be determined by the researcher.

2. This Keratin 7/KRT7 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

A recombinant fragment (around amino acids 1-100) of human Cytokeratin 7 protein (exact sequence is proprietary) was used as the immunogen for the Keratin 7/KRT7 antibody.

Storage

Keratin 7/KRT7 antibody with sodium azide - store at 2 to 8oC; antibody without sodium azide - store at -20 to -80oC.