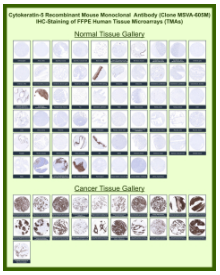
KRT5 Antibody / Keratin 5 [clone MSVA-605M] (V5925)

Catalog No.	Formulation	Size
V5925-100UG	Antibody in 1X PBS with 0.05% BSA, 0.05% sodium azide	100 ug
V5925-20UG	Antibody in 1X PBS with 0.05% BSA, 0.05% sodium azide	20 ug

Recombinant MOUSE MONOCLONAL

Bulk quote request

Species Reactivity	Human
Format	Purified
Host	Mouse
Clonality	Recombinant Mouse Monoclonal
Isotype	Mouse IgG2a, kappa
Clone Name	MSVA-605M
UniProt	P13647
Localization	Cytoplasm
Applications	Immunohistochemistry (FFPE) : 1:100-1:200
Limitations	This recombinant KRT5/Keratin 5 antibody is available for research use only.



Immunohistochemistry analysis of recombinant Keratin 5 / KRT5 antibody (clone MSVA-605M) in FFPE human tissue microarrays. Representative normal and cancer tissue cores show brown chromogenic staining predominantly in basal epithelial cells and tumors with basal or squamous differentiation, while non-epithelial tissues remain largely negative, consistent with the known expression pattern of Keratin 5 in basal epithelial compartments and KRT5-positive carcinomas.

Description

KRT5 antibody targets Keratin 5, a type II intermediate filament protein encoded by the KRT5 gene that is essential for the structural integrity of basal epithelial cells. Keratin 5 is a core component of the epithelial cytoskeleton and forms heterodimeric filaments with Keratin 14, creating a resilient network that supports cell shape and resistance to mechanical stress. Because KRT5 expression is tightly restricted to basal epithelial compartments, a KRT5 antibody is widely used to investigate basal cell identity and epithelial architecture.

KRT5 expression is characteristic of the basal layer of stratified epithelia, including epidermis, prostate, breast, and

respiratory epithelium. In glandular tissues such as the prostate, Keratin 5-positive basal cells form a continuous layer surrounding benign glands, while invasive carcinoma typically lacks KRT5 expression. This biologic distinction makes KRT5 antibody detection valuable for studies examining epithelial organization, basal cell preservation, and loss of basal differentiation in disease contexts.

In cancer biology, KRT5 is strongly associated with tumors exhibiting basal or squamous differentiation. In breast cancer, KRT5 expression is frequently linked to basal-like molecular subtypes and triple-negative disease. In lung, head and neck, and other epithelial malignancies, KRT5 antibody labeling supports identification of squamous cell carcinoma and related differentiation states. These applications highlight the importance of Keratin 5 as a marker of epithelial lineage and differentiation status.

Beyond oncology, alterations in KRT5 expression or function have been implicated in inherited skin disorders and epithelial stress responses, reflecting its essential role in epithelial resilience and repair. Clone MSVA-605M is designed to recognize Keratin 5 encoded by KRT5 and supports research applications focused on epithelial structure, basal cell biology, and disease-associated changes in epithelial differentiation.

Application Notes

1. Optimal dilution of the KRT5/Keratin 5 antibody should be determined by the researcher.

2. This KRT5/Keratin 5 antibody is recombinantly produced by expression in CHO 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 316-590) of human Cytokeratin 5 protein (exact sequence is proprietary) was used as the immunogen for the recombinant KRT5/Keratin 5 antibody.

Storage

KRT5/Keratin 5 antibody with sodium azide store at 2 to 8oC; antibody without sodium azide store at -20 to -80oC.