# KRT5 Antibody for IHC / Cytokeratin 5 Immunohistochemistry Antibody [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**

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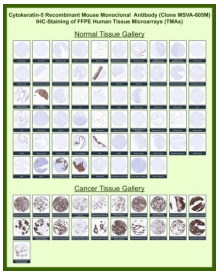
|---|---|
| **Species Reactivity** | Human |
| **Format** | Purified |
| **Host** | Mouse |
| **Clonality** | Recombinant Mouse Monoclonal |
| **Isotype** | Mouse IgG2a, kappa |
| **Clone Name** | MSVA-605M |
| **UniProt** | P13647 |
| **Localization** | Cytoplasm |
| **Applications** | Immunohistochemistry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




KRT5 Antibody for IHC Tissue Microarray (TMA). Immunohistochemistry analysis of Cytokeratin 5 (KRT5) expression in FFPE human tissue microarray sections using KRT5 Antibody for IHC clone MSVA-605M. Tissue microarray panels containing a wide range of normal and cancer tissues demonstrate strong cytoplasmic HRP-DAB brown staining in basal epithelial cell layers of stratified epithelia, including skin, esophagus, and urothelium, while stromal, mesenchymal, and most luminal epithelial compartments remain negative. In cancer TMAs, robust staining is observed in squamous cell carcinomas and tumors with basal-like differentiation, whereas adenocarcinomas and non-epithelial malignancies show minimal to absent signal. The consistent basal-restricted staining pattern across large-scale TMA cohorts supports Cytokeratin 5 as a reliable basal epithelial marker and highlights the utility of this immunohistochemistry antibody for distinguishing squamous and basal-type tumors in FFPE tissue analysis.

## Description

Cytokeratin 5 (KRT5) is a type II intermediate filament protein encoded by the KRT5 gene and is a defining structural

component of basal epithelial cells. It plays a central role in maintaining cytoskeletal stability and mechanical resilience in stratified epithelia, particularly in tissues exposed to environmental stress such as skin, esophagus, and respiratory epithelium. Cytokeratin 5 is most prominently expressed in the basal cell layer, where it supports epithelial renewal and progenitor cell function. KRT5 Antibody for IHC is widely used to visualize these basal compartments in formalin-fixed, paraffin-embedded tissues, enabling clear identification of epithelial hierarchy and tissue architecture in immunohistochemistry studies.

KRT5 antibody, also referred to as Cytokeratin 5 antibody or CK5 antibody in the literature, recognizes a basal epithelial cytoskeletal protein that is highly restricted in its expression pattern. This KRT5 Antibody for IHC is uniquely suited for Tissue Microarray (TMA)-based immunohistochemistry, where its strong and selective staining enables high-throughput comparison across a broad spectrum of normal and tumor tissues. In normal tissue TMAs, robust cytoplasmic HRP-DAB brown staining is consistently observed in basal cell layers of stratified squamous epithelia, urothelium, and select glandular structures with basal cell components, while stromal, endothelial, and most differentiated luminal epithelial cells remain negative. This sharply defined staining pattern provides excellent contrast and makes KRT5 a reliable basal cell marker in FFPE tissue sections.

In cancer tissue microarrays, Cytokeratin 5 expression serves as a critical indicator of squamous differentiation and basal-like tumor phenotypes. Strong, diffuse staining is commonly observed in squamous cell carcinomas of the lung, cervix, head and neck, and esophagus, reflecting retention of basal epithelial characteristics. In contrast, adenocarcinomas and other non-squamous malignancies typically lack KRT5 expression or show only focal staining, providing a clear immunohistochemical distinction. KRT5 Antibody for IHC is therefore extensively used in diagnostic pathology to differentiate squamous cell carcinoma from adenocarcinoma, as well as to identify basal-like subtypes of breast cancer and other epithelial tumors. Its performance in TMA formats allows rapid validation of these patterns across large patient cohorts, strengthening its utility in both clinical research and biomarker development.

Tissue Microarray (TMA) validation with clone MSVA-605M demonstrates highly reproducible staining across diverse tissue types, with patterns that closely mirror established expression profiles reported in the Human Protein Atlas and peer-reviewed literature. The ability to maintain consistent signal intensity and localization across hundreds of tissue cores highlights the robustness of this antibody for large-scale immunohistochemistry studies. This antibody targets Cytokeratin 5 in research applications requiring precise and reliable detection of basal epithelial cells in FFPE specimens, making it well suited for studies of epithelial differentiation, tumor classification, and tissue-specific pathology.

This antibody is part of the KRT5 antibody collection, where additional Cytokeratin 5 antibodies can be explored.

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 KRT5 Antibody for IHC / Cytokeratin 5 Immunohistochemistry 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.

## Alternate Names

Cytokeratin 5 antibody, CK5 antibody, Keratin 5 IHC antibody, KRT5 immunohistochemistry antibody, Basal cytokeratin marker antibody