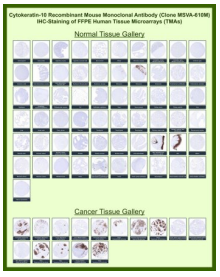
Cytokeratin 10 Antibody for IHC / KRT10 Immunohistochemistry Antibody [clone MSVA-610M] (V5928)

Catalog No.	Formulation	Size
V5928-100UG	Antibody in 1X PBS with 0.05% BSA, 0.05% sodium azide	100 ug
V5928-20UG	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 IgG1, kappa
Clone Name	MSVA-610M
UniProt	P13645
Localization	Cell surface, Extracellular space, Secreted
Applications	Immunohistochemistry (FFPE) : 1:100-1:200
Limitations	This Cytokeratin 10 Antibody for IHC / KRT10 Immunohistochemistry Antibody is available for research use only.



Cytokeratin 10 Antibody for IHC Tissue Microarray (TMA) multi-tissue staining. Immunohistochemistry analysis of KRT10 expression in FFPE human tissue microarray (TMA) sections using Cytokeratin 10 Antibody for IHC clone MSVA-610M demonstrates cytoplasmic HRP-DAB brown staining restricted to suprabasal keratinocytes in stratified squamous epithelia, including skin and mucosal surfaces, with a sharp transition from negative basal layers to strongly positive differentiated epithelial compartments, while most non-squamous tissues remain negative. In cancer tissue arrays, cytoplasmic staining is observed in squamous cell carcinomas, highlighting more differentiated tumor cell populations, whereas reduced or absent staining is seen in non-squamous malignancies and poorly differentiated tumors. The staining pattern supports Cytokeratin 10 as a marker of terminal epithelial differentiation and aligns with established KRT10 expression profiles.

Description

Cytokeratin 10 (KRT10), commonly referred to as CK10, is a type I intermediate filament protein expressed in

differentiated keratinocytes of stratified squamous epithelia. It is a hallmark marker of terminal epidermal differentiation, with expression localized primarily to suprabasal layers of the epidermis and other keratinizing epithelia. Because of this highly restricted and layer-specific expression pattern, Cytokeratin 10 is widely used in immunohistochemistry to evaluate epithelial maturation and differentiation status in formalin-fixed, paraffin-embedded tissues. Cytokeratin 10 Antibody for IHC enables clear cytoplasmic visualization of differentiated keratinocyte populations, where staining distinctly outlines suprabasal epithelial compartments while basal cells remain negative.

Cytokeratin 10 antibody, also referred to as KRT10 antibody or CK10 antibody in the literature, recognizes a cytoplasmic intermediate filament protein localized within differentiated keratinocytes. This Cytokeratin 10 Antibody for IHC is optimized for Tissue Microarray (TMA)-based immunohistochemistry, enabling standardized, high-throughput comparison of epithelial differentiation patterns across large panels of normal and cancer tissues. In normal tissue TMAs, strong cytoplasmic HRP-DAB brown staining is consistently observed in suprabasal layers of stratified squamous epithelia such as skin, with a sharp transition from negative basal keratinocytes to strongly positive differentiated layers, while most non-squamous tissues remain negative.

In cancer tissue microarrays, Cytokeratin 10 expression is associated with tumors exhibiting squamous differentiation, where cytoplasmic staining highlights more differentiated tumor cell populations. Well-differentiated squamous cell carcinomas often retain CK10 expression, while reduced or absent staining may be observed in poorly differentiated or basal-like tumors, reflecting loss of terminal differentiation. This differential staining pattern provides important interpretive value in immunohistochemistry, supporting assessment of tumor differentiation status and aiding in classification of squamous versus non-squamous malignancies.

Tissue Microarray (TMA) analysis enables direct side-by-side comparison of KRT10 expression across numerous tissue types under identical staining conditions, demonstrating highly reproducible, layer-specific cytoplasmic staining in differentiated squamous epithelia with minimal background in non-expressing tissues. Clone MSVA-610M produces strong, well-defined staining across TMA panels, clearly delineating suprabasal keratinocyte layers and highlighting epithelial maturation gradients within tissue sections. The observed staining patterns align with established KRT10 biology and publicly available datasets such as the Human Protein Atlas, reinforcing the reliability of this antibody for large-scale immunohistochemistry studies.

The layer-restricted expression of Cytokeratin 10 provides a distinct advantage in IHC interpretation, as staining intensity and distribution directly reflect epithelial differentiation state. This makes CK10 particularly valuable in studies of epidermal biology, keratinocyte maturation, and tumor progression, where distinguishing basal proliferative cells from differentiated suprabasal populations is critical.

This antibody targets Cytokeratin 10 in research applications requiring precise and interpretable immunohistochemical detection of epidermal and squamous differentiation markers, making it well suited for Tissue Microarray-based studies, epithelial biology research, and tumor classification.

This antibody is part of the Cytokeratin 10 antibody collection, where additional CK10/KRT10 antibodies for various applications 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 Cytokeratin 10 Antibody for IHC / KRT10 Immunohistochemistry Antibody should be determined by the researcher.

2. This KRT10/Keratin 10 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 full-length human KRT10 protein was used as the immunogen for the CK10/Keratin 10 antibody.

Storage

KRT10/Cytokeratin 10 antibody with sodium azide - store at 2 to 8oC; antibody without sodium azide - store at -20 to -80oC.

Alternate Names

KRT10 antibody, Cytokeratin 10 antibody, CK10 antibody, keratin 10 antibody, epidermal differentiation marker antibody, squamous differentiation marker antibody