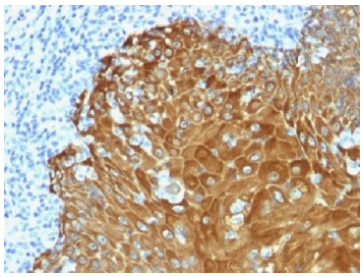
Pan Cytokeratin Polyclonal Antibody / Epithelial Integrity and Barrier Marker (V3490)

Catalog No.	Formulation	Size
V3490-100UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced) and 0.05% sodium azide	100 ug
V3490-20UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced) and 0.05% sodium azide	20 ug
V3490SAF-100UG	1 mg/ml in 1X PBS; BSA free, sodium azide free	100 ug
V3490IHC-7ML	Prediluted in 1X PBS with 0.1 mg/ml BSA (US sourced) and 0.05% sodium azide; *For IHC use only*	7 ml

Bulk quote request

Species Reactivity	Human
Format	Purified
Host	Rabbit
Clonality	Polyclonal (rabbit origin)
Isotype	Rabbit IgG
Purity	Protein A affinity chromatography
Buffer	1X PBS, pH 7.4
Gene ID	3848 (K1); 3850 (K3); 3851 (K4); 3852 (K5); 3853 (K6A); 3856 (K8);3858 (K10); 3861 (K14); 3866 (K15); 3868 (K16); 3880 (K19)
Localization	Cytoplasmic
Applications	Flow cytometry: 0.5-1ug/10^6 cells Immunofluorescence: 1-2ug/ml Western blot: 0.5-1ug/ml for 2 hours at RT Immunohistochemistry (FFPE): 0.25-0.5ug/ml for 30 min at RT
Limitations	This Pan Cytokeratin Polyclonal Antibody / Epithelial Integrity and Barrier Marker is available for research use only.



Pan Cytokeratin Polyclonal Antibody human skin IHC. Immunohistochemistry analysis of cytokeratin expression in FFPE human skin using Pan Cytokeratin antibody. Strong cytoplasmic HRP-DAB brown staining highlights continuous epithelial layers within the epidermis, clearly outlining keratinocyte cohesion and tissue integrity, while underlying dermal structures remain largely negative. The staining pattern supports evaluation of epithelial barrier structure and cellular organization. HIER was performed using 10 mM citrate buffer, pH 6, for 10â€“20 minutes followed by cooling at room temperature prior to antibody incubation.

Description

Cytokeratins are intermediate filament proteins that form an essential structural network within epithelial cells, where they maintain cellular integrity, support mechanical resilience, and preserve tissue cohesion. These filament networks are critical for maintaining epithelial barrier function, allowing tissues to withstand physical stress while maintaining organized cellular architecture. The continuity and organization of cytokeratin networks are closely linked to epithelial integrity and overall tissue stability.

Pan Cytokeratin Polyclonal Antibody / Epithelial Integrity and Barrier Marker (rabbit polyclonal) is designed for broad detection of cytokeratin proteins in immunohistochemistry, enabling detailed visualization of epithelial structure and continuity. This antibody recognizes multiple cytokeratin isoforms, providing comprehensive labeling of epithelial cells and highlighting the organization of epithelial layers. Pan cytokeratin antibody, also referred to as cytokeratin cocktail antibody or CK pan antibody, is widely used for identifying epithelial tissues and assessing structural integrity.

In tissue sections, cytokeratin staining appears as strong cytoplasmic labeling that outlines epithelial cells and emphasizes the continuity of epithelial layers. This allows clear visualization of intact epithelial structures and supports assessment of tissue organization. Continuous and uniform staining is typically associated with preserved epithelial integrity, while disruptions in staining patterns may indicate structural alteration or loss of cohesion.

In normal tissues, cytokeratin staining highlights well-organized epithelial layers with defined cellular boundaries and consistent architecture. These features reflect functional barrier properties and stable tissue organization. The ability to visualize these patterns supports evaluation of epithelial integrity under normal physiological conditions.

In disease states, alterations in cytokeratin staining patterns may reflect changes in epithelial organization, including fragmentation of epithelial layers, loss of polarity, or disruption of cell cohesion. These changes can provide insight into tissue remodeling and structural abnormalities.

In tumor samples, cytokeratin staining reveals changes in epithelial organization associated with tumor progression. Loss of normal tissue architecture, irregular cell arrangement, and disruption of epithelial continuity can be visualized through altered staining patterns. This supports analysis of tumor structure and epithelial integrity within malignant tissues.

The polyclonal nature of this antibody allows recognition of multiple epitopes across cytokeratin proteins, supporting broad detection and strong signal intensity across epithelial tissues. This enhances staining robustness and improves detection consistency in samples with variable cytokeratin expression.

Because this antibody is designed for broad cytokeratin detection, it is not intended for isoform-specific analysis. Instead, it provides a comprehensive view of epithelial structure and integrity, complementing more specific markers used for detailed characterization of epithelial subtypes and functional states.

Pan Cytokeratin Antibody rabbit polyclonal therefore provides a useful tool for evaluating epithelial integrity and barrier function, enabling clear visualization of epithelial continuity, structural organization, and tissue cohesion across normal and disease states.

Explore our widely cited Pan Cytokeratin Antibody AE1/AE3 cocktail for broad epithelial cell identification, carcinoma research, and detection of acidic and basic cytokeratins.

Application Notes

The concentration stated for each application is a general starting point. Variations in protocols, secondaries and substrates may require the Pan Cytokeratin Polyclonal Antibody / Epithelial Integrity and Barrier Marker to be titered up or down for optimal performance.

1. The prediluted format is supplied in a dropper bottle and is optimized for use in IHC. After epitope retrieval step (if required), drip mAb solution onto the tissue section and incubate at RT for 30 min.

This antibody detects acidic (Type I or LMW) and basic (Type II or HMW) cytokeratins: 67kDa (CK1); 64kDa (CK3); 59kDa (CK4); 58kDa (CK5); 56kDa (CK6); 52kDa (CK8); 56.5kDa (CK10); 50kDa (CK14); 50kDa (CK15); 48kDa (CK16); 40kDa (CK19).

Immunogen

Recombinant full-length human KRT76 and KRT77 proteins were used as the immunogen for this Pan Cytokeratin Polyclonal Antibody.

Storage

Store the Pan Cytokeratin Polyclonal Antibody at 2-8oC (with azide) or aliquot and store at -20oC or colder (without azide).

Alternate Names

Pan cytokeratin antibody IHC, epithelial integrity marker antibody, cytokeratin barrier function antibody, CK pan epithelial structure antibody, cytokeratin tissue cohesion marker

References (2)

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