

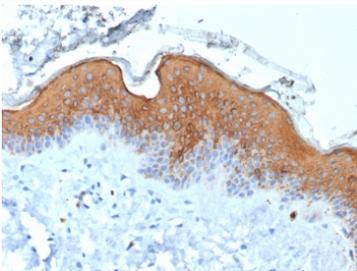
KRT10 Antibody / Cytokeratin 10 / CK10 [clone rKRT10/6923] (V4482)

Catalog No.	Formulation	Size
V4482-100UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced), 0.05% sodium azide	100 ug
V4482-20UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced), 0.05% sodium azide	20 ug
V4482SAF-100UG	1 mg/ml in 1X PBS; BSA free, sodium azide free	100 ug

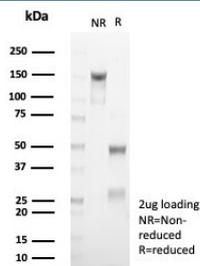
Recombinant **MOUSE MONOCLONAL**

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Availability	1-3 business days
Species Reactivity	Human
Format	Purified
Host	Mouse
Clonality	Recombinant Mouse Monoclonal
Isotype	Mouse IgG1, kappa
Clone Name	rKRT10/6923
Purity	Protein A/G affinity
UniProt	P13645
Localization	Cytoplasm
Applications	Immunohistochemistry (FFPE) : 1-2ug/ml for 30 minutes at RT
Limitations	This recombinant KRT10 antibody is available for research use only.



IHC staining of FFPE human skin tissue with recombinant KRT10 antibody (clone rKRT10/6923). HIER: boil tissue sections in pH 9 10mM Tris with 1mM EDTA for 20 min and allow to cool before testing.



SDS-PAGE analysis of purified, BSA-free recombinant KRT10 antibody (clone rKRT10/6923) as confirmation of integrity and purity.

Description

KRT10 antibody recognizes Cytokeratin 10, a type I intermediate filament protein encoded by the KRT10 gene and a defining marker of suprabasal keratinocyte differentiation in stratified squamous epithelia. Keratin 10 is expressed as keratinocytes exit the basal proliferative layer and initiate terminal differentiation, where it pairs predominantly with Keratin 1 to form robust intermediate filament networks. These filaments provide mechanical resilience and structural stability to the epidermis, supporting barrier formation and resistance to physical stress. As such, KRT10 antibody reagents are widely used to study epidermal maturation, epithelial lineage specification, and keratinocyte differentiation programs.

In normal tissues, Keratin 10 expression is largely confined to the suprabasal layers of the epidermis and other stratified squamous epithelia, showing a characteristic cytoplasmic filamentous staining pattern. This restricted distribution makes KRT10 antibody a valuable complement to basal cell markers such as Keratin 5 and Keratin 14, allowing clear discrimination between proliferative basal keratinocytes and differentiated suprabasal cells. The tightly regulated spatial expression of Keratin 10 reflects its role in coordinating cytoskeletal reorganization during epidermal stratification and terminal differentiation.

Keratin 10 also has significant relevance in dermatopathology and epithelial tumor biology. Altered Cytokeratin 10 expression is observed in a range of hyperproliferative and inflammatory skin disorders, where reduced or aberrant staining reflects disrupted differentiation. In squamous cell carcinoma and related neoplasms, KRT10 antibody staining can assist in assessing tumor differentiation status, with well-differentiated lesions more likely to retain Keratin 10 expression compared with poorly differentiated tumors. Inherited disorders of keratinization, including epidermolytic hyperkeratosis, further highlight the functional importance of Keratin 10 in maintaining keratinocyte integrity.

At the molecular level, Keratin 10 belongs to the acidic type I keratin family and contains the conserved alpha-helical rod domain required for heterodimer formation and filament assembly. Its expression is regulated by calcium-dependent signaling and transcriptional pathways governing epidermal differentiation. A KRT10 antibody therefore provides a reliable tool for investigating epidermal biology, differentiation status, and disease-associated alterations in stratified squamous epithelia.

Application Notes

Optimal dilution of the recombinant KRT10 antibody should be determined by the researcher.

Immunogen

A recombinant partial protein sequence (within amino acids 384-584) from the human protein was used as the immunogen for the recombinant KRT10 antibody.

Storage

Aliquot the recombinant KRT10 antibody and store frozen at -20°C or colder. Avoid repeated freeze-thaw cycles.

