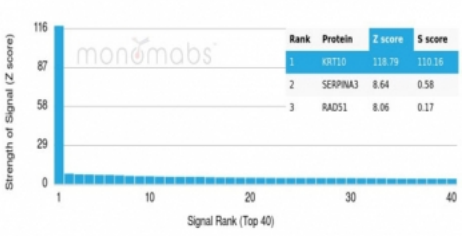
Keratin 10 Antibody / Cytokeratin 10 / CK10 [clone KRT10/3861] (V4475)

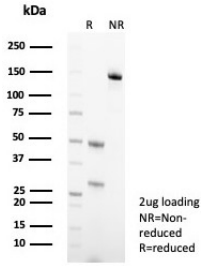
Catalog No.	Formulation	Size
V4475-100UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced), 0.05% sodium azide	100 ug
V4475-20UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced), 0.05% sodium azide	20 ug
V4475SAF-100UG	1 mg/ml in 1X PBS; BSA free, sodium azide free	100 ug

Bulk quote request

Availability	1-3 business days
Species Reactivity	Human
Format	Purified
Host	Mouse
Clonality	Monoclonal (mouse origin)
Isotype	Mouse IgG1, kappa
Clone Name	KRT10/3861
Purity	Protein A/G affinity
UniProt	P13645
Localization	Cytoplasm
Applications	Immunohistochemistry (FFPE) : 1-2ug/ml for 30 minutes at RT
Limitations	This Keratin 10 antibody is available for research use only.



Analysis of a HuProt(TM) microarray containing more than 19,000 full-length human proteins using Keratin 10 antibody (clone KRT10/3861). Z- and S- Score: The Z-score represents the strength of a signal that a monoclonal antibody (in combination with a fluorescently-tagged anti-IgG secondary antibody) produces when binding to a particular protein on the HuProt(TM) array. Z-scores are described in units of standard deviations (SD's) above the mean value of all signals generated on that array. If targets on HuProt(TM) are arranged in descending order of the Z-score, the S-score is the difference (also in units of SD's) between the Z-score. S-score therefore represents the relative target specificity of a mAb to its intended target. A mAb is considered to specific to its intended target, if the mAb has an S-score of at least 2.5. For example, if a mAb binds to protein X with a Z-score of 43 and to protein Y with a Z-score of 14, then the S-score for the binding of that mAb to protein X is equal to 29.



SDS-PAGE analysis of purified, BSA-free Keratin 10 antibody (clone KRT10/3861) as confirmation of integrity and purity.

Description

Keratin 10 antibody recognizes Cytokeratin 10, a type I intermediate filament protein encoded by the KRT10 gene that serves as a hallmark of suprabasal keratinocyte differentiation in stratified squamous epithelia. Keratin 10 is induced as keratinocytes withdraw from the cell cycle and transition from the basal proliferative compartment into differentiated suprabasal layers. In this context, Keratin 10 pairs primarily with Keratin 1 to assemble intermediate filament networks that provide mechanical strength, structural integrity, and resilience to the epidermis. Because of this tightly regulated expression pattern, KRT10 antibody is widely used to study epidermal differentiation, epithelial maturation, and keratinocyte lineage commitment.

In normal tissues, Keratin 10 expression is largely restricted to the suprabasal layers of the epidermis and other stratified squamous epithelia, where it displays a characteristic cytoplasmic filamentous staining pattern. Basal keratinocytes typically lack Keratin 10 expression, instead expressing basal keratins such as Keratin 5 and Keratin 14. This clear compartmentalization makes KRT10 antibody a valuable tool for distinguishing differentiated suprabasal cells from proliferative basal cells in both normal and diseased tissue. Keratin 10 expression therefore reflects the functional state of keratinocytes and the integrity of epidermal stratification.

Keratin 10 has important relevance in dermatopathology and epithelial tumor biology. Altered or reduced Cytokeratin 10 expression is frequently observed in hyperproliferative skin disorders, inflammatory dermatoses, and conditions associated with impaired differentiation. In squamous cell carcinoma and related epithelial malignancies, KRT10 antibody staining can assist in evaluating the degree of tumor differentiation, as well-differentiated lesions are more likely to retain Keratin 10 expression compared with poorly differentiated tumors. Genetic disorders of keratinization, including epidermolytic hyperkeratosis, further underscore the functional importance of Keratin 10 in maintaining epidermal stability.

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

Application Notes

Optimal dilution of the Keratin 10 antibody should be determined by the researcher.

Immunogen

Recombinant full-length human KRT10 protein was used as the immunogen for the Keratin 10 antibody.

Storage

Aliquot the Keratin 10 antibody and store frozen at -20oC or colder. Avoid repeated freeze-thaw cycles.