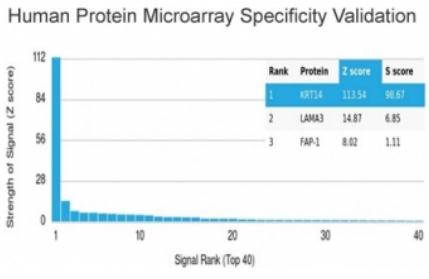
CK14 Antibody KRT14/4133 / Keratin 14 Monoclonal Antibody [clone KRT14/4133] (V9319)

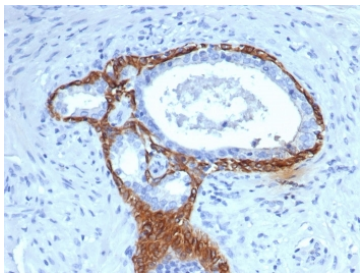
Catalog No.	Formulation	Size
V9319-100UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced), 0.05% sodium azide	100 ug
V9319-20UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced), 0.05% sodium azide	20 ug
V9319SAF-100UG	1 mg/ml in 1X PBS; BSA free, sodium azide free	100 ug

Bulk quote request

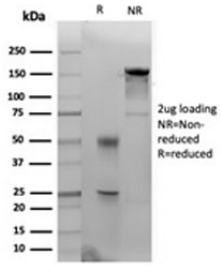
Species Reactivity	Human
Format	Purified
Host	Mouse
Clonality	Monoclonal (mouse origin)
Isotype	Mouse IgG2b, kappa
Clone Name	KRT14/4133
Purity	Protein A/G affinity
UniProt	P02533
Localization	Cytoplasmic
Applications	Immunohistochemistry (FFPE): 1-2ug/ml
Limitations	This CK14 Antibody KRT14/4133 / Keratin 14 Monoclonal Antibody is available for research use only.



CK14 Antibody KRT14/4133 by Protein Microarray Analysis. HuProt protein microarray analysis of CK14 Antibody KRT14/4133 against more than 19,000 full-length human proteins. The graph identifies KRT14 as the highest-ranked target, with a prominent binding signal separated from the remaining proteins on the array. The Keratin 14 Monoclonal Antibody demonstrates preferential recognition of cytokeratin 14 under the tested microarray conditions. The Z-score represents the strength of the binding signal relative to the array background, while the S-score measures the separation between the two highest-ranked protein signals.



CK14 Antibody KRT14/4133 by IHC in Human Prostate. Immunohistochemistry of FFPE human prostate tissue using CK14 Antibody KRT14/4133. Strong brown cytoplasmic staining outlines the basal epithelial cells surrounding prostatic glandular structures, while the luminal epithelial cells and adjacent stromal tissue show comparatively little immunoreactivity. The Keratin 14 Monoclonal Antibody highlights the characteristic basal cell distribution of cytokeratin 14 in prostate tissue. Nuclei are counterstained blue with hematoxylin. Heat-induced epitope retrieval was performed using 10 mM Tris with 1 mM EDTA, pH 9, for 20 minutes, followed by cooling before staining.



CK14 Antibody KRT14/4133 by SDS-PAGE. SDS-PAGE analysis of purified, BSA-free CK14 Antibody KRT14/4133 under reducing (R) and non-reducing (NR) conditions, with 2 ug of antibody loaded per lane. The reducing lane shows distinct bands migrating near 50 kDa and 25 kDa, corresponding to the immunoglobulin heavy and light chains, respectively. The non-reducing lane contains a prominent band near 150 kDa, consistent with intact immunoglobulin. The Keratin 14 Monoclonal Antibody demonstrates the expected electrophoretic profile of a purified mouse monoclonal antibody preparation.

Description

CK14 Antibody KRT14/4133 recognizes cytokeratin 14, a type I intermediate filament protein encoded by the KRT14 gene on chromosome 17. Keratin 14 is expressed predominantly in basal epithelial cells of stratified squamous tissues, including the epidermis, oral mucosa, and esophagus. It is also found in basal and myoepithelial cells of certain glandular tissues, where its distribution reflects epithelial organization and differentiation. As a major structural component of basal keratinocytes, KRT14 contributes to cellular stability and resistance to mechanical stress. Its characteristic expression makes it a widely investigated marker of basal epithelial differentiation, tissue regeneration, and changes in epithelial phenotype associated with disease.

Keratin 14 forms heterodimers with keratin 5, a type II intermediate filament protein, creating the principal keratin pair of basal epithelial cells. These heterodimers assemble into intermediate filament networks that connect with desmosomes and hemidesmosomes through associated proteins. This organization helps distribute mechanical forces across epithelial tissues and maintain cellular integrity. During keratinocyte differentiation, KRT14 expression generally decreases as cells move into suprabasal compartments, where other keratin pairs become more prominent. Keratins 1 and 10 characterize keratinizing epidermis, while keratins 4 and 13 are associated with nonkeratinized mucosal epithelia. These differences help researchers characterize epithelial maturation and distinguish basal from differentiated cell populations.

Pathogenic variants in KRT14 are associated with epidermolysis bullosa simplex, an inherited skin disorder characterized by mechanical fragility and blister formation. Cytokeratin 14 is also investigated in squamous cell carcinomas, basal-like breast cancers, and other epithelial malignancies. Its expression may help identify basal differentiation patterns and characterize cellular heterogeneity within tumors. In glandular tissues, KRT14 staining is frequently evaluated alongside other basal cell markers to distinguish epithelial compartments and investigate changes in tissue architecture. Research involving KRT14 contributes to understanding epithelial maintenance, wound repair, inherited keratin disorders, and tumor-associated changes in differentiation.

NSJ Bioreagents offers mouse monoclonal clone KRT14/4133 for investigating human keratin 14 expression. The antibody was developed against a recombinant human KRT14 fragment and provides an additional clone option for studying basal epithelial populations. Its validation data include immunohistochemistry and HuProt protein microarray analysis, supporting investigation of cytokeratin 14 expression in human tissue specimens. The Keratin 14 Monoclonal Antibody complements other cytokeratin-specific reagents used to characterize epithelial differentiation and intermediate filament organization. A CK14 Antibody such as KRT14/4133 supports research into basal cell biology, epithelial pathology, and keratin-associated disorders.

Explore our KRT14 Antibody KRT14/4128 for investigating cytokeratin 14 expression, basal epithelial differentiation, and

intermediate filament organization in normal and diseased tissues.

Application Notes

Optimal dilution of the CK14 Antibody KRT14/4133 / Keratin 14 Monoclonal Antibody should be determined by the researcher.

Immunogen

A portion of amino acids 351-472 was used as the immunogen for the CK14 Antibody KRT14/4133.

Storage

Aliquot the CK14 Antibody KRT14/4133 and store frozen at -20oC or colder. Avoid repeated freeze-thaw cycles.

Alternate Names

Cytokeratin 14 antibody, Keratin 14 antibody, KRT14 antibody, Cytokeratin-14 antibody, Keratin-14 antibody, Type I Cytoskeletal Keratin 14 antibody

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