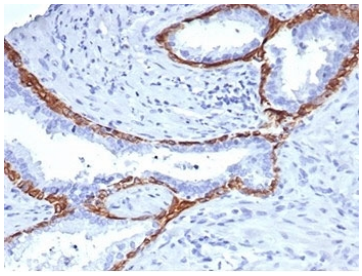
Cytokeratin 14 Antibody KRT14/4131 / KRT14 Monoclonal Antibody [clone KRT14/4131] (V4029)

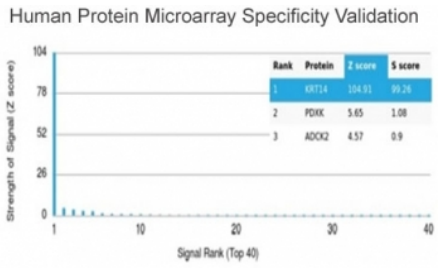
Catalog No.	Formulation	Size
V4029-100UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced), 0.05% sodium azide	100 ug
V4029-20UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced), 0.05% sodium azide	20 ug
V4029SAF-100UG	1 mg/ml in 1X PBS; BSA free, sodium azide free	100 ug

Bulk quote request

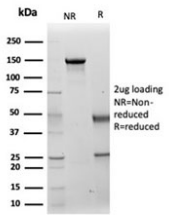
Species Reactivity	Human
Format	Purified
Host	Mouse
Clonality	Monoclonal (mouse origin)
Isotype	Mouse IgG1, kappa
Clone Name	KRT14/4131
Purity	Protein A/G affinity
UniProt	P02533
Localization	Cytoplasm
Applications	Immunohistochemistry (FFPE): 1-2ug/ml
Limitations	This Cytokeratin 14 Antibody KRT14/4131 / KRT14 Monoclonal Antibody is available for research use only.



Cytokeratin 14 Antibody KRT14/4131 by IHC in Human Prostate. Immunohistochemistry of FFPE human prostate tissue using Cytokeratin 14 Antibody KRT14/4131. Strong brown cytoplasmic staining is concentrated in the basal epithelial cells surrounding prostatic glands, forming a distinct outline around the glandular structures. The luminal epithelial cells and surrounding stromal tissue exhibit comparatively little immunoreactivity. The KRT14 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.



Cytokeratin 14 Antibody KRT14/4131 by Protein Microarray Analysis. HuProt protein microarray analysis of Cytokeratin 14 Antibody KRT14/4131 against more than 19,000 full-length human proteins. The graph identifies KRT14 as the highest-ranked target, with a strong binding signal clearly separated from the remaining proteins. The KRT14 Monoclonal Antibody demonstrates preferential recognition of cytokeratin 14 under the tested microarray conditions. The Z-score represents signal intensity relative to the array background, while the S-score measures the difference between the two highest-ranked protein signals.



Cytokeratin 14 Antibody KRT14/4131 by SDS-PAGE. SDS-PAGE analysis of purified, BSA-free Cytokeratin 14 Antibody KRT14/4131 under non-reducing (NR) and reducing (R) conditions, with 2 ug of antibody loaded per lane. The non-reducing lane shows a prominent band migrating near 150 kDa, consistent with intact immunoglobulin. Under reducing conditions, a prominent band is observed near 25 kDa, corresponding to the immunoglobulin light chain. The expected heavy-chain band near 50 kDa is not clearly resolved in the displayed image. The KRT14 Monoclonal Antibody demonstrates the principal electrophoretic features of a purified mouse monoclonal antibody preparation.

Description

Cytokeratin 14 Antibody KRT14/4131 recognizes cytokeratin 14 (KRT14), a type I intermediate filament protein expressed predominantly in basal epithelial cells. Encoded by the KRT14 gene on chromosome 17, this protein is an important structural component of stratified squamous epithelia, including the epidermis, oral mucosa, and esophagus. KRT14 is also expressed in basal and myoepithelial cells of certain glandular tissues. Its distribution makes it a valuable marker for investigating epithelial differentiation, tissue renewal, and the organization of basal cell populations. In normal epithelia, cytokeratin 14 contributes to mechanical stability and helps cells withstand the physical stresses encountered during tissue maintenance.

Keratin 14 forms heterodimers with keratin 5, a type II intermediate filament protein, creating a filament network characteristic of basal keratinocytes. These intermediate filaments connect to desmosomes and hemidesmosomes through associated proteins, providing structural support and helping maintain epithelial integrity. During differentiation, basal keratinocytes migrate toward suprabasal compartments and undergo changes in keratin expression. Keratins 1 and 10 become prominent in keratinizing epidermis, while keratins 4 and 13 are associated with nonkeratinized mucosal epithelia. These distinct expression patterns help researchers identify epithelial cell populations and characterize tissue-specific differentiation.

Pathogenic variants in KRT14 are associated with epidermolysis bullosa simplex, an inherited disorder characterized by skin fragility and blister formation following mechanical trauma. Cytokeratin 14 is also investigated in squamous cell carcinomas, basal-like breast cancers, and other epithelial malignancies. Its expression can help characterize basal differentiation and identify changes in epithelial phenotype associated with tumor development. In prostate and breast tissue research, CK14 is frequently examined alongside other basal cell markers to distinguish epithelial compartments and evaluate alterations in glandular architecture. Interpretation depends on tissue context and the accompanying marker profile.

NSJ Bioreagents offers mouse monoclonal clone KRT14/4131, developed against a human KRT14 protein fragment within amino acids 351-472. The antibody recognizes human cytokeratin 14 and is validated for immunohistochemistry on formalin-fixed, paraffin-embedded tissues. Additional HuProt protein microarray data provide supporting information about antigen recognition. The KRT14 Monoclonal Antibody offers an alternative clone for examining basal epithelial populations and intermediate filament organization in human tissue specimens. A Cytokeratin 14 Antibody such as KRT14/4131 supports research into epithelial differentiation, inherited keratin disorders, and tumor-associated changes in cellular phenotype.

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 Cytokeratin 14 Antibody KRT14/4131 / KRT14 Monoclonal Antibody should be determined by the researcher.

Immunogen

A portion of amino acids 351-472 from the human KRT14 protein was used as the immunogen for the Cytokeratin 14 Antibody KRT14/4131.

Storage

Aliquot the Cytokeratin 14 Antibody KRT14/4131 and store frozen at -20oC or colder. Avoid repeated freeze-thaw cycles.

Alternate Names

CK14 antibody, Keratin 14 antibody, KRT14 antibody, Cytokeratin-14 antibody, Keratin-14 antibody, Type I Cytoskeletal Keratin 14 antibody

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