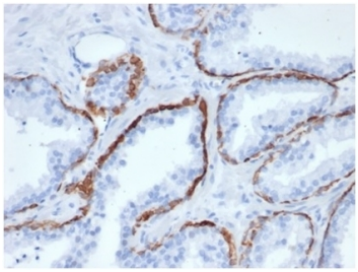
Keratin 5 Antibody KRT5/6466 / KRT5 Monoclonal Antibody [clone KRT5/6466] (V8794)

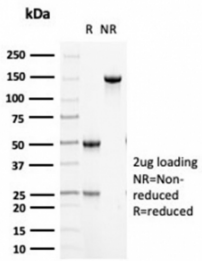
Catalog No.	Formulation	Size
V8794-100UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced), 0.05% sodium azide	100 ug
V8794-20UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced), 0.05% sodium azide	20 ug
V8794SAF-100UG	1 mg/ml in 1X PBS; BSA free, sodium azide free	100 ug

Bulk quote request

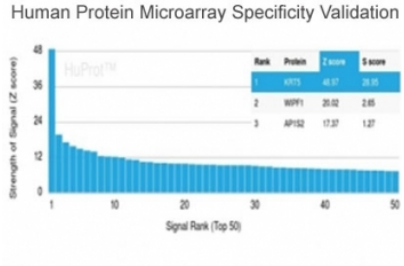
Availability	1-3 business days
Species Reactivity	Human
Format	Purified
Host	Mouse
Clonality	Monoclonal (mouse origin)
Isotype	Mouse IgG1, kappa
Clone Name	KRT5/6466
Purity	Protein A/G affinity
UniProt	P13647
Localization	Cytoplasm
Applications	Immunohistochemistry (FFPE): 1-2ug/ml
Limitations	This Keratin 5 Antibody KRT5/6466 / KRT5 Monoclonal Antibody is available for research use only.



Keratin 5 Antibody KRT5/6466 by IHC in Human Prostate. Immunohistochemistry of FFPE human prostate tissue using Keratin 5 Antibody KRT5/6466. Brown DAB staining is concentrated in epithelial cells surrounding glandular structures, with a predominantly cytoplasmic distribution. The KRT5 Monoclonal Antibody highlights basal epithelial populations, while the glandular lumens and surrounding stromal tissue exhibit comparatively little staining. Nuclei are counterstained blue with hematoxylin. Heat-induced epitope retrieval was performed by boiling tissue sections in 10 mM Tris with 1 mM EDTA, pH 9, for 20 minutes, followed by cooling before antibody incubation.



Keratin 5 Antibody KRT5/6466 by SDS-PAGE. SDS-PAGE analysis of purified, BSA-free Keratin 5 Antibody KRT5/6466 under reducing (R) and non-reducing (NR) conditions, with 2 ug of antibody loaded per lane. The non-reducing lane shows a prominent band at approximately 150 kDa, consistent with intact IgG. Under reducing conditions, distinct bands are observed at approximately 50 kDa and 25 kDa, corresponding to the expected immunoglobulin heavy and light chains, respectively. The electrophoretic profile is consistent with the expected composition of a purified mouse monoclonal antibody preparation.



Keratin 5 Antibody KRT5/6466 by Protein Microarray. Protein microarray specificity analysis of Keratin 5 Antibody KRT5/6466 using a HuProt human protein microarray containing more than 19,000 full-length proteins. The graph shows a prominent leading binding signal followed by substantially weaker signals across the remaining ranked proteins. The KRT5 Monoclonal Antibody demonstrates preferential recognition of its intended target under the assay conditions, supporting its specificity. Z-score and S-score measurements are used to assess relative binding strength and target selectivity.

Description

Keratin 5 Antibody KRT5/6466 recognizes cytokeratin 5 (KRT5), a type II intermediate filament protein expressed primarily in the basal layers of stratified epithelia. Also known as CK5, this approximately 58 kDa protein contributes to the cytoskeletal framework that protects epithelial cells against mechanical stress. KRT5 is expressed in basal keratinocytes of the epidermis and in specialized epithelial populations of the prostate, mammary gland, and respiratory tract. Its distribution makes it an important marker for identifying basal epithelial cells and investigating tissue differentiation.

KRT5 forms heterodimers with keratin 14 (KRT14), a type I intermediate filament protein, to establish a network of cytoplasmic filaments. These structures help maintain cell shape, distribute mechanical forces, and support epithelial tissue integrity. KRT5 expression is generally strongest in proliferative basal compartments, while differentiation toward suprabasal layers is accompanied by changes in keratin expression. In the epidermis, this transition includes increased expression of KRT1 and KRT10. The coordinated regulation of keratin proteins provides insight into epithelial maturation, tissue renewal, and responses to injury.

Keratin 5 is widely investigated in tumor pathology because its expression is associated with basal epithelial differentiation and squamous cell carcinoma. In lung cancer research, KRT5 is frequently evaluated alongside KRT6 and p63 to characterize squamous differentiation. KRT5 expression is also associated with certain basal-like breast cancers and can help identify epithelial subpopulations with distinct differentiation states. In prostate research, staining for KRT5 helps identify basal epithelial cells, which are typically absent from conventional prostatic adenocarcinoma glands. These applications make KRT5 valuable for investigating epithelial organization and tumor heterogeneity.

Mutations in KRT5 are associated with epidermolysis bullosa simplex, a group of inherited disorders characterized by skin fragility and blistering. KRT5 is also studied in epithelial regeneration, wound healing, and developmental biology. NSJ Bioreagents offers mouse monoclonal clone KRT5/6466, raised against a portion of human KRT5 within amino acids 316-590. The antibody is supported by immunohistochemistry and HuProt protein microarray validation. A Keratin 5 Antibody provides a useful tool for studying basal epithelial differentiation, cytoskeletal organization, and epithelial tumor biology.

Explore our protein microarray-validated Cytokeratin 5 Antibody KRT5/3594 for investigating basal epithelial differentiation, squamous cell carcinomas, and keratin filament organization.

Application Notes

Optimal dilution of the Keratin 5 Antibody KRT5/6466 / KRT5 Monoclonal Antibody should be determined by the

researcher.

Immunogen

A portion of amino acids 316-590 was used as the immunogen for the Keratin 5 Antibody KRT5/6466.

Storage

Aliquot the Keratin 5 Antibody KRT5/6466 and store frozen at -20oC or colder. Avoid repeated freeze-thaw cycles.

Alternate Names

Cytokeratin 5 antibody, CK5 antibody, CK-5 antibody, KRT5 antibody, Cytokeratin Type II 5 antibody, Basal Cell Keratin antibody

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