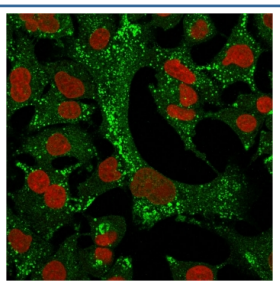
Cytokeratin 4 Antibody KRT4/2804 / CK4 Monoclonal Antibody [clone KRT4/2804] (V7910)

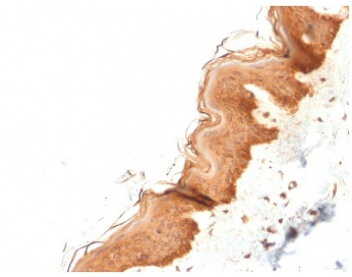
Catalog No.	Formulation	Size
V7910-100UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced) and 0.05% sodium azide	100 ug
V7910-20UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced) and 0.05% sodium azide	20 ug
V7910SAF-100UG	1 mg/ml in 1X PBS; BSA free, sodium azide free	100 ug

Bulk quote request

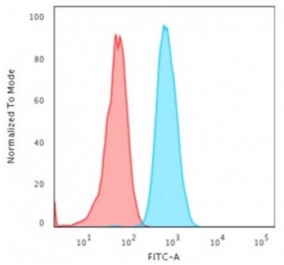
Species Reactivity	Human
Format	Purified
Host	Mouse
Clonality	Monoclonal (mouse origin)
Isotype	Mouse IgG1, kappa
Clone Name	KRT4/2804
Purity	Protein G affinity chromatography
UniProt	P19013
Localization	Cell membrane, cytoplasm, nucleus
Applications	Flow cytometry: 1-2ug/million cells in 0.1ml Immunofluorescence: 1-2ug/ml Immunohistochemistry (FFPE): 1-2ug/ml
Limitations	This Cytokeratin 4 Antibody KRT4/2804 / CK4 Monoclonal Antibody is available for research use only.



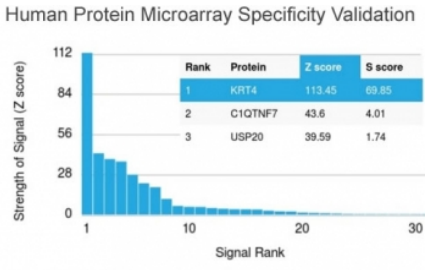
Cytokeratin 4 Antibody KRT4/2804 by IF in Human A549 Cells. Immunofluorescence staining of permeabilized human A549 cells using Cytokeratin 4 Antibody KRT4/2804. Green fluorescence is observed predominantly throughout the cytoplasm, displaying a filamentous and granular staining pattern surrounding the nuclei. The CK4 Monoclonal Antibody produces cytoplasmic staining consistent with the organization of keratin intermediate filaments. Nuclei are counterstained red with RedDot nuclear stain. The image demonstrates antibody reactivity in cultured human cells.



Cytokeratin 4 Antibody KRT4/2804 by IHC in Human Skin. Immunohistochemistry of FFPE human skin tissue using Cytokeratin 4 Antibody KRT4/2804. Strong brown DAB staining is observed throughout a stratified epithelial region, with particularly prominent staining in the superficial epithelial layers. The underlying connective tissue shows comparatively little staining. The CK4 Monoclonal Antibody produces predominantly cytoplasmic staining within the epithelial compartment, while 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.



Cytokeratin 4 Antibody KRT4/2804 by FACS in Human HeLa Cells. Flow cytometry analysis of permeabilized human HeLa cells using Cytokeratin 4 Antibody KRT4/2804. The blue histogram represents cells stained with the CK4 Monoclonal Antibody, while the red histogram represents the isotype control. A clear rightward fluorescence shift is observed in the antibody-stained population compared with the control, demonstrating detectable antibody binding in permeabilized HeLa cells. The results support recognition of an intracellular antigen under the assay conditions.



Cytokeratin 4 Antibody KRT4/2804 by Protein Microarray. Protein microarray specificity analysis of Cytokeratin 4 Antibody KRT4/2804 using a HuProt human protein microarray containing more than 19,000 full-length proteins. KRT4 is identified as the highest-ranking target, with a strong binding signal that is clearly separated from most other proteins on the array. The graph displays ranked protein signals and associated specificity measurements. The CK4 Monoclonal Antibody demonstrates preferential recognition of KRT4 under the microarray assay conditions, supporting its target specificity.

Description

Cytokeratin 4 Antibody KRT4/2804 recognizes keratin 4 (KRT4), a type II intermediate filament protein expressed predominantly in the suprabasal layers of non-keratinized stratified squamous epithelia. Also known as CK4 or cytokeratin 4, this approximately 59 kDa protein is encoded by the KRT4 gene on chromosome 12. KRT4 contributes to the structural integrity of epithelial cells by forming cytoplasmic intermediate filament networks that provide mechanical stability. Its expression is particularly prominent in the esophagus, oral mucosa, pharynx, and other mucosal surfaces exposed to repeated mechanical stress.

KRT4 typically forms heterodimers with keratin 13 (KRT13), a type I intermediate filament protein expressed in similar epithelial compartments. These heterodimers assemble into higher-order filament structures that help maintain cell shape and epithelial resilience. During squamous epithelial differentiation, KRT4 and KRT13 expression increases as cells move away from the proliferative basal layer. Their coordinated expression distinguishes many non-keratinized stratified epithelia from keratinized tissues, where proteins such as KRT1 and KRT10 are more characteristic. KRT4 is therefore useful for investigating epithelial differentiation and tissue-specific keratin expression.

Mutations in KRT4 are associated with white sponge nevus, a rare inherited disorder characterized by thickened, white, folded plaques affecting the oral mucosa and occasionally other mucosal surfaces. Disease-associated variants can disrupt intermediate filament organization and alter epithelial differentiation. KRT4 expression is also investigated in squamous cell carcinoma, particularly tumors originating from the upper aerodigestive tract. Reduced expression has been reported in some head and neck squamous carcinomas, although keratin profiles vary with tumor differentiation and anatomical origin.

Changes in KRT4 expression may provide information about epithelial remodeling, mucosal injury, and malignant transformation. The protein is studied alongside other keratins to characterize epithelial identity and differentiation status.

NSJ Bioreagents offers mouse monoclonal clone KRT4/2804, developed against recombinant human KRT4 amino acids 181-292 and supported by immunofluorescence, immunohistochemistry, flow cytometry, and protein microarray validation. A Cytokeratin 4 Antibody provides a useful reagent for investigating mucosal epithelial differentiation, intermediate filament organization, and squamous epithelial biology.

Explore our Cytokeratin 4 Antibodies for investigating mucosal epithelial differentiation, keratin filament organization, and KRT4 expression in normal and diseased tissues.

Application Notes

Optimal dilution of the Cytokeratin 4 Antibody KRT4/2804 / CK4 Monoclonal Antibody should be determined by the researcher.

Immunogen

A recombinant human partial protein (amino acids 181-292) was used as the immunogen for this Cytokeratin 4 Antibody KRT4/2804.

Storage

Store the Cytokeratin 4 Antibody KRT4/2804 at 2-8oC (with azide) or aliquot and store at -20oC or colder (without azide).

Alternate Names

KRT4 antibody, Keratin 4 antibody, CK4 antibody, Cytokeratin-4 antibody, Keratin Type II Cytoskeletal 4 antibody, Keratin-4 antibody, Cytokeratin IV antibody

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