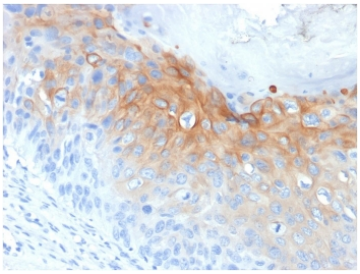
CK1 Antibody KRT1/1840 / Cytokeratin 1 Monoclonal Antibody [clone KRT1/1840] (V7908)

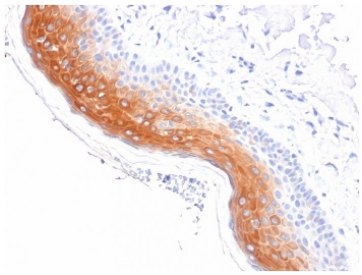
Catalog No.	Formulation	Size
V7908-100UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced) and 0.05% sodium azide	100 ug
V7908-20UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced) and 0.05% sodium azide	20 ug
V7908SAF-100UG	1 mg/ml in 1X PBS; BSA free, sodium azide free	100 ug

Bulk quote request

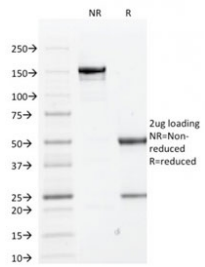
Availability	1-3 business days
Species Reactivity	Human, Rat
Format	Purified
Host	Mouse
Clonality	Monoclonal (mouse origin)
Isotype	Mouse IgG2a, kappa
Clone Name	KRT1/1840
Purity	Protein G affinity chromatography
UniProt	P04264
Localization	Cytoplasmic
Applications	Immunohistochemistry (FFPE): 2-4ug/ml
Limitations	This CK1 Antibody KRT1/1840 / Cytokeratin 1 Monoclonal Antibody is available for research use only.



CK1 Antibody KRT1/1840 by IHC in Human Cervical Carcinoma. Immunohistochemistry of FFPE human cervical carcinoma tissue using CK1 Antibody KRT1/1840. Moderate to strong brown DAB staining is observed predominantly in the cytoplasm of differentiated squamous epithelial cells, with stronger staining toward the superficial regions and weaker staining in the underlying cells. The Cytokeratin 1 Monoclonal Antibody highlights the differentiation-associated expression of KRT1 in squamous epithelium. 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 antibody incubation.



CK1 Antibody KRT1/1840 by IHC in Human Skin. Immunohistochemistry of FFPE human skin tissue using CK1 Antibody KRT1/1840. Strong brown DAB staining is observed throughout the suprabasal epidermal layers, while the basal keratinocytes show comparatively little staining. The Cytokeratin 1 Monoclonal Antibody demonstrates the characteristic distribution of KRT1 in differentiating keratinocytes, consistent with its role in epidermal intermediate filament organization. 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 antibody incubation.



CK1 Antibody KRT1/1840 by SDS-PAGE. SDS-PAGE analysis of purified, BSA-free CK1 Antibody KRT1/1840, with 2 ug of antibody loaded per lane. The non-reducing (NR) lane shows a prominent band at approximately 150 kDa, consistent with intact IgG. The reducing (R) lane is faint, with no clearly resolved heavy and light chains visible in the displayed image. The non-reducing band supports the integrity of the purified mouse monoclonal antibody preparation.

Description

CK1 Antibody KRT1/1840 recognizes cytokeratin 1, a type II intermediate filament protein encoded by the KRT1 gene on chromosome 12. Also known as keratin 1 or CK1, this approximately 67 kDa protein is expressed predominantly in differentiating keratinocytes of stratified squamous epithelia. KRT1 is an important component of the epidermal cytoskeleton, where it provides mechanical stability and helps maintain the structural integrity of the skin. Its expression is closely associated with the transition of keratinocytes from the proliferative basal compartment into the differentiated suprabasal layers.

Cytokeratin 1 typically pairs with keratin 10 (KRT10), a type I keratin, to form heterodimers that assemble into intermediate filament networks. These networks help distribute mechanical stress throughout epithelial cells and contribute to epidermal resilience. In normal epidermis, basal keratinocytes primarily express KRT5 and KRT14, while differentiating suprabasal cells progressively express KRT1 and KRT10. This coordinated change in keratin expression provides a useful indicator of epidermal maturation and terminal differentiation. KRT1 is also found in other keratinizing stratified epithelia, although expression varies with tissue type and differentiation state.

Mutations in KRT1 are associated with epidermolytic ichthyosis, a hereditary disorder characterized by epidermal fragility, blistering, and hyperkeratosis. Certain mutations also cause palmoplantar keratoderma and related disorders of cornification. These conditions arise when altered keratin proteins disrupt intermediate filament assembly and compromise keratinocyte stability. KRT1 expression is additionally investigated in wound repair, inflammatory skin disorders, and epithelial tumors exhibiting squamous differentiation. Changes in its distribution can provide information about abnormal keratinization and altered epithelial maturation.

NSJ Bioreagents offers mouse monoclonal clone KRT1/1840, developed using recombinant full-length human cytokeratin 1 as the immunogen. This antibody provides an alternative clone for investigating KRT1 expression and the organization of differentiated epithelial tissues. A CK1 Antibody KRT1/1840 is useful for studying epidermal differentiation, keratin filament biology, skin disorders, and squamous epithelial development.

Explore our Cytokeratin 1 Antibody LHK1 for investigating epidermal differentiation, keratin filament organization, and KRT1 expression in normal and diseased epithelial tissues.

Application Notes

Optimal dilution of the CK1 Antibody KRT1/1840 / Cytokeratin 1 Monoclonal Antibody should be determined by the

researcher.

Immunogen

A recombinant full-length human Cytokeratin 1 protein was used as the immunogen for this CK1 Antibody KRT1/1840.

Storage

Store the CK1 Antibody KRT1/1840 at 2-8oC (with azide) or aliquot and store at -20oC or colder (without azide).

Alternate Names

Cytokeratin 1 antibody, Keratin 1 antibody, KRT1 antibody, Cytokeratin-1 antibody, Keratin Type II Cytoskeletal 1 antibody, Epidermal Keratin 1 antibody

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