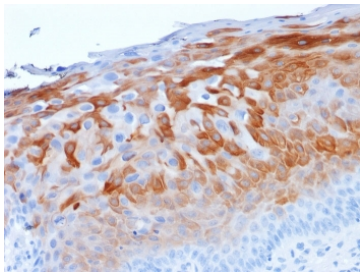
Cytokeratin 1 Antibody LHK1 / CK1 Monoclonal Antibody [clone LHK1] (V7907)

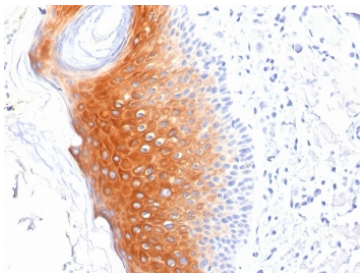
Catalog No.	Formulation	Size
V7907-100UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced) and 0.05% sodium azide	100 ug
V7907-20UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced) and 0.05% sodium azide	20 ug
V7907SAF-100UG	1 mg/ml in 1X PBS; BSA free, sodium azide free	100 ug

Bulk quote request

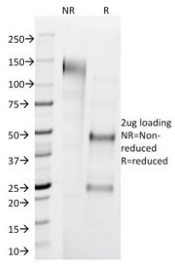
Species Reactivity	Human, Rat
Format	Purified
Host	Mouse
Clonality	Monoclonal (mouse origin)
Isotype	Mouse IgG2a, kappa
Clone Name	LHK1
Purity	Protein G affinity chromatography
UniProt	P04264
Localization	Cytoplasmic
Applications	Immunohistochemistry (FFPE): 1-2ug/ml
Limitations	This Cytokeratin 1 Antibody LHK1 / CK1 Monoclonal Antibody is available for research use only.



Cytokeratin 1 Antibody LHK1 by IHC in Human Cervix. Immunohistochemistry of FFPE human cervical tissue using Cytokeratin 1 Antibody LHK1. Moderate to strong brown DAB staining is observed predominantly in the cytoplasm of differentiated squamous epithelial cells, with stronger expression in the superficial epithelial layers and relatively weak staining in the basal region. The CK1 Monoclonal Antibody demonstrates the differentiation-associated expression pattern of KRT1 in stratified 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.



Cytokeratin 1 Antibody LHK1 by IHC in Human Skin. Immunohistochemistry of FFPE human skin tissue using Cytokeratin 1 Antibody LHK1. Strong brown DAB staining is observed throughout the suprabasal epidermal layers, including the spinous and granular regions, while the basal keratinocyte layer shows comparatively little staining. The CK1 Monoclonal Antibody highlights 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.



Cytokeratin 1 Antibody LHK1 by SDS-PAGE. SDS-PAGE analysis of purified, BSA-free Cytokeratin 1 Antibody LHK1 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 at approximately 150 kDa, consistent with intact IgG. Under reducing conditions, bands corresponding to the immunoglobulin heavy chain (~50 kDa) and light chain (~25 kDa) are visible. The electrophoretic profile is consistent with the expected composition of a purified mouse monoclonal antibody.

Description

Cytokeratin 1 Antibody LHK1 recognizes keratin 1 (KRT1), a type II intermediate filament protein expressed primarily in suprabasal keratinocytes of stratified squamous epithelia. Also known as CK1 or cytokeratin 1, this approximately 67 kDa protein is encoded by the KRT1 gene on chromosome 12q13.13. KRT1 is a major structural component of the epidermal cytoskeleton, where it contributes to mechanical stability and resistance to physical stress. Its expression increases as keratinocytes leave the proliferative basal layer and undergo terminal differentiation, making it an established marker of epidermal maturation.

KRT1 typically forms heterodimers with keratin 10 (KRT10), a type I keratin expressed in differentiating epidermal cells. These heterodimers assemble into larger intermediate filament networks that maintain cellular architecture and help distribute mechanical forces throughout the epidermis. Unlike basal keratinocytes, which predominantly express KRT5 and KRT14, suprabasal keratinocytes characteristically express KRT1 and KRT10. This coordinated transition in keratin expression reflects the progression from proliferation toward terminal differentiation and formation of the protective epidermal barrier.

Mutations in KRT1 are associated with epidermolytic ichthyosis, a genetic skin disorder characterized by blistering, epidermal fragility, and hyperkeratosis. Certain KRT1 variants also cause palmoplantar keratoderma and related disorders of keratinization. These conditions arise from disruptions in intermediate filament organization that compromise the structural integrity of keratinocytes. KRT1 expression is additionally investigated in wound healing, inflammatory skin diseases, and epithelial tumors, particularly those exhibiting squamous differentiation. Changes in KRT1 abundance or distribution may reflect altered epidermal differentiation, although its expression is not specific to malignancy.

Clone LHK1 is a mouse monoclonal antibody developed against a C-terminal peptide of human KRT1. Many publications have been associated with this clone, supporting its established use in epithelial and skin research, although individual citations should be verified for exact clone identity. NSJ Bioreagents offers Cytokeratin 1 Antibody LHK1 for investigating epidermal differentiation, intermediate filament organization, keratinization disorders, and squamous epithelial biology.

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

Application Notes

Optimal dilution of the Cytokeratin 1 Antibody LHK1 / CK1 Monoclonal Antibody should be determined by the researcher.

Immunogen

Amino acids VRFVSTSYSGVTR from the C-terminal portion of the protein were used as the immunogen for this Cytokeratin 1 Antibody LHK1.

Storage

Store the Cytokeratin 1 Antibody LHK1 at 2-8oC (with azide) or aliquot and store at -20oC or colder (without azide).

Alternate Names

CK1 antibody, Keratin 1 antibody, KRT1 antibody, Cytokeratin-1 antibody, Keratin Type II Cytoskeletal 1 antibody, 67 kDa Keratin antibody

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