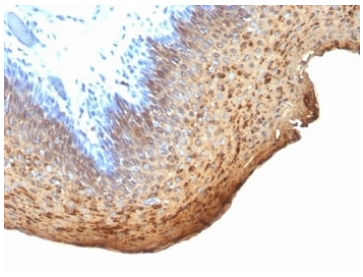
Cytokeratin 10/13 Antibody DE-K13 / CK10 CK13 Monoclonal Antibody [clone DE-K13] (V3053)

Catalog No.	Formulation	Size
V3053-100UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced) and 0.05% sodium azide	100 ug
V3053-20UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced) and 0.05% sodium azide	20 ug
V3053SAF-100UG	1 mg/ml in 1X PBS; BSA free, sodium azide free	100 ug
V3053IHC-7ML	Prediluted in 1X PBS with 0.1 mg/ml BSA (US sourced) and 0.05% sodium azide; *For IHC use only*	7 ml

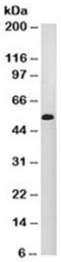
Citations (11)

Bulk quote request

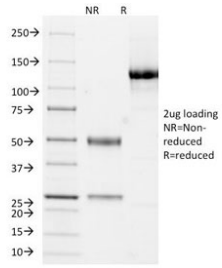
Species Reactivity	Human
Format	Purified
Host	Mouse
Clonality	Monoclonal (mouse origin)
Isotype	Mouse IgG2a, kappa
Clone Name	DE-K13
Purity	Protein G affinity chromatography
UniProt	P13645, P13646
Localization	Cytoplasmic
Applications	Flow cytometry: 1-2ug/10^6 cells Immunofluorescence: 1-2ug/ml Western blot: 1-2ug/ml Immunohistochemistry (FFPE): 1-2ug/ml for 30 min at RT
Limitations	This Cytokeratin 10/13 Antibody DE-K13 / CK10 CK13 Monoclonal Antibody is available for research use only.



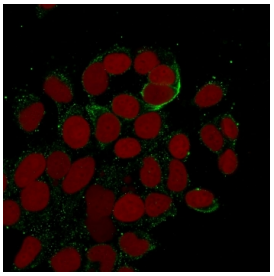
Cytokeratin 10/13 Antibody DE-K13 by IHC in Human Tonsil. Immunohistochemistry of FFPE human tonsil tissue using Cytokeratin 10/13 Antibody DE-K13. Brown cytoplasmic staining is observed throughout the stratified squamous epithelium, with prominent immunoreactivity in the suprabasal epithelial layers. The CK10 CK13 Monoclonal Antibody highlights differentiated epithelial cells, while the underlying lymphoid tissue exhibits comparatively little staining. Nuclei are counterstained blue with hematoxylin. The staining pattern is consistent with CK13 expression in nonkeratinized stratified squamous epithelium.



Cytokeratin 10/13 Antibody DE-K13 by WB in A431 Cells. Western blot analysis of A431 human epidermoid carcinoma cell lysate using Cytokeratin 10/13 Antibody DE-K13. A distinct immunoreactive band is observed at approximately 53-55 kDa, within the expected molecular weight range of cytokeratin 13 (53 kDa) and cytokeratin 10 (56.5 kDa). The CK10 CK13 Monoclonal Antibody recognizes both proteins in Western blotting, although the closely related molecular weights do not permit definitive assignment of the observed band to either cytokeratin from this experiment alone.



Cytokeratin 10/13 Antibody DE-K13 by SDS-PAGE. SDS-PAGE analysis of purified, BSA-free Cytokeratin 10/13 Antibody DE-K13 under non-reducing (NR) and reducing (R) conditions. The non-reducing lane shows prominent bands at approximately 50 kDa and 25 kDa, while the reducing lane exhibits a strong band migrating near 130-150 kDa. The CK10 CK13 Monoclonal Antibody demonstrates distinct electrophoretic profiles under the two conditions, although the apparent lane labeling and band distribution are unusual for conventional IgG analysis.



Cytokeratin 10/13 Antibody DE-K13 by IF in Human MCF7 Cells. Immunofluorescence staining of methanol-fixed human MCF7 breast cancer cells using Cytokeratin 10/13 Antibody DE-K13. Green fluorescence is observed in the cytoplasm of the cells, with staining concentrated around the nuclei and extending into the surrounding cytoplasmic regions. The CK10 CK13 Monoclonal Antibody produces a predominantly cytoplasmic staining pattern, while nuclei are counterstained red with Reddot nuclear stain.

Description

Cytokeratin 10/13 Antibody DE-K13 recognizes cytokeratins 10 and 13, two members of the type I intermediate filament protein family involved in epithelial differentiation and structural integrity. Keratin 10 (KRT10) is predominantly expressed in suprabasal keratinocytes of the epidermis, whereas keratin 13 (KRT13) is associated with differentiating cells of nonkeratinized stratified squamous epithelia. Although both proteins contribute to intermediate filament networks, their tissue distributions differ substantially. This distinction makes CK10 and CK13 useful markers for investigating epithelial specialization, differentiation, and changes in keratin expression associated with disease.

Keratin 10 forms intermediate filaments primarily with keratin 1, supporting the mechanical stability of differentiated epidermal cells. Its expression begins as keratinocytes leave the proliferative basal compartment and enter the suprabasal layers. Keratin 13, by contrast, typically associates with keratin 4 and is expressed in nonkeratinized squamous epithelia, including the oral mucosa, esophagus, and portions of the female reproductive tract. The contrasting distributions of KRT10 and KRT13 reflect differences in epithelial maturation and function. Researchers examine these keratins to characterize keratinizing and nonkeratinizing epithelial tissues and to investigate changes in differentiation-associated protein expression.

Altered CK10 and CK13 expression is associated with inflammatory disorders, inherited keratin diseases, and epithelial

neoplasia. Pathogenic variants in KRT10 cause epidermolytic ichthyosis, an inherited disorder characterized by epidermal fragility and hyperkeratosis. Changes in KRT13 expression have been reported in squamous epithelial lesions and carcinomas, where reduced expression may accompany altered differentiation. Mutations in KRT13 are associated with white sponge nevus, a benign inherited condition affecting nonkeratinized mucosal epithelia. Together, these proteins provide complementary information about epithelial identity and differentiation status.

NSJ Bioreagents offers mouse monoclonal clone DE-K13 for investigating cytokeratin expression in epithelial tissues. The antibody recognizes CK10 and CK13 in Western blot analysis but is reported to detect CK13 rather than CK10 in formalin-fixed, paraffin-embedded tissue sections. This application-dependent recognition should be considered when interpreting experimental results. The CK10 CK13 Monoclonal Antibody provides a useful reagent for studying epithelial differentiation and keratin expression patterns. A Cytokeratin 10/13 Antibody such as DE-K13 supports research into squamous epithelial biology, tissue specialization, and keratin-associated disorders.

Explore our Cytokeratin Antibodies for investigating epithelial differentiation, intermediate filament organization, and cytokeratin expression in normal and malignant tissues.

Application Notes

Optimal dilution of the Cytokeratin 10/13 Antibody DE-K13 / CK10 CK13 Monoclonal Antibody should be determined by the researcher.

1. Staining of formalin-fixed tissues requires boiling tissue sections in 10mM Citrate buffer, pH 6.0, for 10-20 min followed by cooling at RT for 20 min.
2. The prediluted format is supplied in a dropper bottle and is optimized for use in IHC. After epitope retrieval step (if required), drip mAb solution onto the tissue section and incubate at RT for 30 min.

Immunogen

A cytoskeletal preparation extracted from human ectocervical epithelium was used as the immunogen for the Cytokeratin 10/13 Antibody DE-K13.

Storage

Store the Cytokeratin 10/13 Antibody DE-K13 at 2-8oC (with azide) or aliquot and store at -20oC or colder (without azide).

Alternate Names

Keratin 10/13 antibody, CK10/CK13 antibody, Cytokeratin 10 and 13 antibody, Keratin 10 and 13 antibody, KRT10/KRT13 antibody, Cytokeratin 10 antibody, Cytokeratin 13 antibody

Copyright © NSJ Bioreagents. All rights reserved.