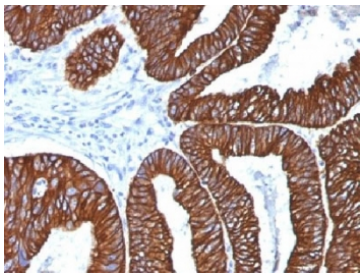
Cytokeratin 8/18 Antibody 5D3 / Mouse Monoclonal [clone 5D3] (V3316)

Catalog No.	Formulation	Size
V3316-0.5ML	Bioreactor concentrate with 0.05% sodium azide	0.5 ml
V3316-0.1ML	Bioreactor concentrate with 0.05% sodium azide	0.1 ml

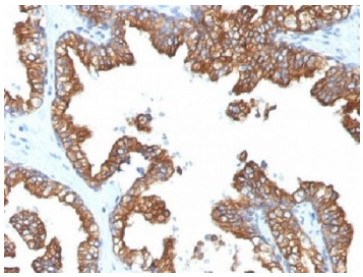
Citations (20)

Bulk quote request

Availability	1-3 business days
Species Reactivity	Human
Format	Bioreactor concentrate
Host	Mouse
Clonality	Monoclonal (mouse origin)
Isotype	Mouse IgG1, kappa
Clone Name	5D3
UniProt	P05787, P05783
Localization	Cytoplasmic
Applications	Flow cytometry: 2-5ul/10^6 cells Immunofluorescence: 1:100-1:200 Immunohistochemistry (FFPE): 1:50-1:100 for 30 min at RT
Limitations	This Cytokeratin 8/18 Antibody 5D3 is available for research use only.



Cytokeratin 8/18 Antibody 5D3 by IHC in human colon carcinoma. Immunohistochemistry of formalin-fixed, paraffin-embedded human colon carcinoma tissue using Cytokeratin 8/18 Antibody clone 5D3. Strong brown cytoplasmic immunoreactivity highlights neoplastic glandular epithelial cells arranged around irregular luminal spaces. The staining is particularly prominent along the cytoplasmic borders of the carcinoma cells, producing a distinct pattern within the glandular structures. Intervening stromal tissue exhibits minimal staining, while hematoxylin counterstaining reveals nuclei in blue. Heat-induced epitope retrieval was performed by boiling tissue sections in 10 mM Tris containing 1 mM EDTA, pH 9, for 10-20 minutes.



IHC analysis of FFPE human prostate carcinoma with Cytokeratin 8/18 Antibody 5D3. Required HIER: boil tissue sections in pH 9 10mM Tris with 1mM EDTA for 10-20 min.

Description

Cytokeratin 8/18 Antibody 5D3 recognizes the cytokeratin 8 and 18 intermediate filament system associated with simple epithelial cells. Cytokeratin 8 (CK8), encoded by KRT8, is a type II keratin that commonly forms heteropolymers with cytokeratin 18 (CK18), a type I keratin encoded by KRT18. Together, these proteins assemble into cytoplasmic intermediate filament networks that provide mechanical stability, maintain cellular architecture, and contribute to epithelial resilience under physiological stress. Their coordinated expression is characteristic of many simple and glandular epithelia.

The CK8/CK18 filament system is widely distributed in epithelial tissues of the gastrointestinal tract, liver, pancreas, respiratory system, and reproductive organs. In hepatocytes, keratins 8 and 18 constitute the principal intermediate filament network, contributing to cellular integrity during metabolic and mechanical stress. These proteins are also expressed in glandular epithelial populations, where their distribution reflects tissue differentiation and cytoskeletal specialization. Cytokeratin 8/18 Antibody 5D3 is relevant to studies examining these epithelial characteristics.

In cancer research, CK8 and CK18 are frequently investigated as markers of epithelial differentiation. Many adenocarcinomas retain expression of these keratins, including malignancies originating in the breast, colon, lung, pancreas, and prostate. Their detection can help identify epithelial tumor populations within complex tissue specimens. CK8/CK18 expression is also relevant to studies of Paget disease, where keratin-positive neoplastic cells may be distinguished from surrounding epidermal keratinocytes using an appropriate marker panel. However, these proteins are not specific to individual tumor types, and their expression must be interpreted alongside morphology and complementary markers.

Beyond structural support, CK8 and CK18 participate in cellular responses to stress, apoptosis, and cytoskeletal remodeling. Phosphorylation influences filament organization, while caspase-mediated cleavage of CK18 occurs during epithelial cell apoptosis. Alterations in keratin organization may accompany changes in cellular polarity, tissue injury, and malignant transformation. These processes make the CK8/CK18 system relevant to investigations of epithelial homeostasis and disease.

NSJ Bioreagents offers clone 5D3 for research examining epithelial intermediate filament expression and differentiation. This Cytokeratin 8/18 Antibody supports studies of glandular epithelial identity, carcinoma-associated cytoskeletal patterns, and the relationship between keratin organization and cellular structure.

Researchers studying the K8/K18 intermediate filament system can explore our Cytokeratin 8/18 Antibody page for additional reagents targeting these widely expressed epithelial keratins.

Application Notes

Optimal dilution of the Cytokeratin 8/18 Antibody 5D3 should be determined by the researcher.

Immunogen

A cytoskeleton preparation from human breast cancer MCF-7 cells was used as the immunogen for the Cytokeratin 8/18 antibody.

Storage

Store the Cytokeratin 8/18 Antibody 5D3 at 2-8oC.

Copyright © NSJ Bioreagents. All rights reserved.