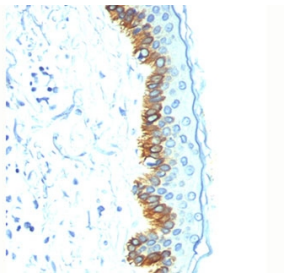
Acidic Cytokeratin Antibody [clone AE1] (V2328)

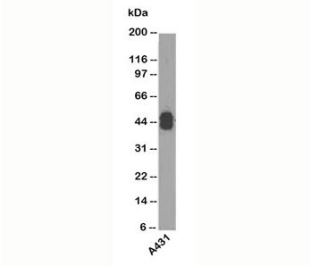
Catalog No.	Formulation	Size
V2328-100UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced) and 0.05% sodium azide	100 ug
V2328-20UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced) and 0.05% sodium azide	20 ug
V2328SAF-100UG	1 mg/ml in 1X PBS; BSA free, sodium azide free	100 ug
V2328IHC-7ML	Prediluted 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**

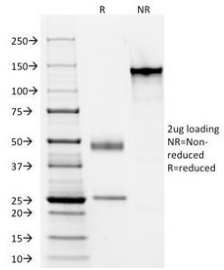
Species Reactivity	Human, Mouse, Rat
Format	Purified
Host	Mouse
Clonality	Monoclonal (mouse origin)
Isotype	Mouse IgG1, kappa
Clone Name	AE1
Purity	Protein G purified
Buffer	1X PBS, pH 7.4
Gene ID	3858
Localization	Cytoplasmic
Applications	Flow Cytometry : 0.5-1ug/10^6 cells Immunofluorescence : 1-2ug/ml Western Blot : 0.5-1ug/ml Immunohistochemistry (FFPE) : 0.5-1ug/ml for 30 min at RT
Limitations	This **Acidic Cytokeratin antibody** is available for research use only.



IHC staining of human skin with Acidic Cytokeratin antibody AE1.



Western blot testing using Acidic Cytokeratin antibody AE1.



SDS-PAGE Analysis of Purified, BSA-Free Acidic Cytokeratin Antibody (clone AE1). Confirmation of Integrity and Purity of the Antibody.

Description

Acidic Cytokeratin antibody clone AE1 is a monoclonal antibody that detects a range of low molecular weight cytokeratins belonging to the acidic type I family, including CK10, CK14, CK15, CK16, CK18, and CK19. These keratins are expressed in simple epithelia and certain stratified epithelial tissues, where they play roles in providing structural integrity and regulating cell differentiation. Because of their broad expression patterns, acidic cytokeratins serve as valuable markers for studying epithelial biology and epithelial-derived tumors. NSJ Bioreagents provides Acidic Cytokeratin antibody clone AE1 for applications in cancer pathology, developmental research, and epithelial cell studies.

Acidic Cytokeratin antibody clone AE1 produces strong cytoplasmic staining in epithelial tissues, reflecting the distribution of type I keratins. Its wide reactivity across multiple acidic keratins makes it an essential reagent in pathology. In diagnostic settings, clone AE1 is frequently used to characterize carcinomas, particularly adenocarcinomas, and to distinguish epithelial tumors from those of mesenchymal or hematopoietic origin.

In cancer research, Acidic Cytokeratin antibody clone AE1 is used to study keratin expression patterns in breast, lung, gastrointestinal, and ovarian tumors. Shifts in acidic cytokeratin expression often correlate with tumor progression and epithelial to mesenchymal transition, processes linked to metastasis. Clone AE1 helps researchers investigate how changes in cytokeratin composition influence cancer behavior.

Beyond oncology, Acidic Cytokeratin antibody clone AE1 has applications in developmental biology and regenerative medicine. Acidic keratins are expressed at specific stages of epithelial differentiation, and detection with this antibody provides insights into how epithelial tissues mature and repair themselves following injury.

This antibody has also been employed in studies of epithelial stress responses, as acidic keratins participate in protecting cells against physical and chemical stress. Their expression can be altered by tissue injury, infection, or chronic disease, and clone AE1 has been used to monitor these changes.

Validated for both tissue-based and cell-based studies, Acidic Cytokeratin antibody clone AE1 delivers reproducible cytoplasmic staining patterns. It is widely cited in cancer pathology, developmental research, and epithelial biology. Alternate names include type I cytokeratin antibody, low molecular weight cytokeratin antibody, and keratin AE1 antibody.

Application Notes

The concentration stated for each application is a general starting point. Variations in protocols, secondaries and substrates may require the Acidic Cytokeratin antibody AE1 to be titered up or down for optimal performance.

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 minutes.
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

Solubilized keratin extract from human stratum corneum

Storage

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

References (2)