

Cytokeratin 8; Clone K8/383

| Catalog Number | Format | Volume |
|----------------|----------------|--------|
| A00136-0002 | (Ready-To-Use) | 2 ml |
| A00136-0007 | (Ready-To-Use) | 7 ml |
| A00136-0025 | (Ready-To-Use) | 25 ml |
| A00136-C | (Concentrate) | 1 ml |

Intended Use

For In-Vitro Diagnostic Use. This antibody is intended for the qualitative visualization of the anatomical elements listed in the Specificity section. It is intended to be used within an Immunohistochemistry (IHC) procedure on formalin-fixed paraffin-embedded (FFPE) human tissue followed by visualization by light microscopy.

Description

Titer/Working Dilution: Ready-to-Use: No further dilution required.
Concentrate: Suggested dilution is 1:100-150

Species: Mouse
Immunogen: BALB/c mice were injected with recombinant Cytokeratin 8 protein.
Clone: K8/383
Isotype: IgG1
Mol. Wt. of Antigen: 52 kDa
Format: Ready-To-Use antibody has been pre-titrated and quality controlled to work on formalin-fixed paraffin-embedded as well as acetone fixed cryostat tissue sections. No further titration is required.
Concentrate antibody is provided in a buffered saline containing 1% BSA.

Specificity: Cytokeratin 8 Antibody belongs to the type II (or B or Basic) subfamily of high molecular weight Cytokeratins and exists in combination with Cytokeratin 18. Cytokeratin 8 is primarily found in the non-squamous epithelia and is present in a majority of adenocarcinomas and ductal carcinomas. It is absent in squamous cell carcinomas.

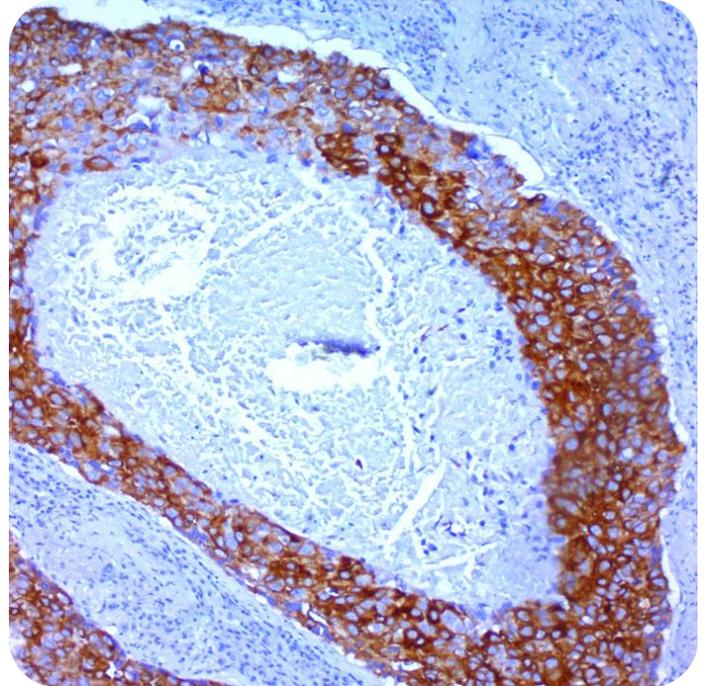
Background: Epithelial cells express antimicrobial proteins in response to invading pathogens. Cytokeratins (CKs) are heteropolymers, similar to the intermediate filament (IF)-forming proteins of epithelial cells. CKs serves to distinguish different epithelial cells, in which they are expressed. CKs largely maintain the specific keratin patterns associated with their respective cells of origin thus play important role in the classification of tumor cells. Antibodies to cytokeratins are important markers of tissue differentiation. More recently, cytokeratins have also been documented as regulators of other cellular properties and functions, including apico-basal polarization, motility, cell size, protein synthesis and membrane traffic and signaling. Mutations in most of them are now associated with specific tissue-fragility disorders. CKs are now extensively used as diagnostic tumor markers, as epithelial malignancies. Therefore, cleaved cytokeratin expression in tumors and/or peripheral blood carries prognostic significance for cancer patients. Several studies have also provided evidence for active involvement of cytokeratins in cancer cell invasion and metastasis, as well as in treatment responsiveness.

Species Reactivity: Human, Rat. Others not known.
Positive Control: MCF-7 or A431 cells. Human Skin, Colon, Lung or Breast carcinoma.
Cellular Localization: Cytoplasm and Cell Surface.
Microbiological State: Nonsterile

Materials and Reagents Required but not Provided

- Control tissue and reagents
- Xylene, graded alcohols, and deionized/distilled water
- Antibody Diluent.
- IHC detection system. Suggested: ScyTek Cat# ABZ125 "CRF Anti-Polyvalent HRP Polymer" and ScyTek Cat# ACV500 "DAB Chromogen/Substrate Kit (High Contrast)".
- Wash buffer for rinses (ScyTek Cat# TBT500)
- HIER Retrieval Solution
- Hematoxylin counterstain and bluing reagent (ScyTek Cat# HMM500 and BRT500)
- Mounting medium and coverslips

Note: ScyTek Laboratories has a wide range of IHC reagents and ancillaries that can be found at scytek.com.



Human breast carcinoma stained with Ultra-Tek HRP and DAB Chromogen.

Procedure

- Tissue Section Pretreatment (Highly Recommended):** Staining of formalin fixed paraffin embedded tissue sections is significantly enhanced by pretreatment with Tis-EDTA HIER Solution (10x) pH 9.0 (ScyTek catalog# TES500) or Citrate Plus (10x) HIER Solution (ScyTek catalog# CPL500)
- Primary Antibody Incubation Time:** We suggest an incubation period of 30 minutes at room temperature. However, depending upon the fixation conditions and the staining system employed, optimal incubation should be determined by the user.

Storage: 2° C  8° C

 ScyTek Laboratories, Inc.
205 South 600 West
Logan, UT 84321
U.S.A.



EC REP

Emergo Europe
Westervoortsedijk 60
6827 AT Arnhem, The Netherlands

P.O. Box 3286 - Logan, Utah 84323, U.S.A. - Tel. (800) 729-8350 – Tel. (435) 755-9848 - Fax (435) 755-0015 - www.ScyTek.com

3. Visualization: For maximum staining intensity we recommend the “CRF Anti-Polyvalent HRP Polymer” (ScyTek catalog# ABZ125, see IFU for instructions) combined with the “DAB Chromogen/Substrate Bulk Pack (High Contrast)” (ScyTek catalog# ACV500, see IFU for instructions).

Storage and Stability

Do not Freeze. Store at 2-8°C. Return to 2-8° immediately after use. Do not use after expiration date printed on label. Verify visually that antibody has not been contaminated before use. Do not use if reagent becomes cloudy or precipitates.

Limitations

Immunohistochemistry is a complex technique involving both histological and immunological detection methods. Tissue processing and handling prior to immunostaining can cause inconsistent results. Variations in fixation and embedding or the inherent nature of the tissue specimen may cause variations in results. Endogenous peroxidase activity or pseudoperoxidase activity in erythrocytes and endogenous biotin may cause non-specific staining depending on detection system used. This data sheet's recommendations and procedures were validated using ScyTek IHC reagents and may not be suitable for other detection systems.

Precautions

1. Contains Sodium Azide as a preservative (0.09% w/v), do not ingest. Sodium Azide may react with lead and copper plumbing to form highly explosive metal azides. Upon disposal, flush with large volumes of water to prevent azide build-up in plumbing. This product contains no hazardous material at a reportable concentration according to U.S. 29 CFR 1910.1200, OSHA Hazardous Communication Standard and EC Directive 91/155/EC.
2. Do not pipette by mouth.
3. Avoid contact of reagents and specimens with skin and mucous membranes.
4. Avoid microbial contamination of reagents or increased nonspecific staining may occur.
5. The user must validate any procedures and recommendations that differ from this data sheet.
6. The SDS may be found at scytek.com

References

1. Guelstein VI et al.; Int J Cancer 1988; 42:147-53.
2. Ku N.-O. ,Omary M.B.; J. Cell Biol. 2006; 174: 115-125 .
3. Lau A.T. ,Chiu J.F.; Cancer Res. 2007; 67: 2107-2113.
4. Linder S. et al; Cancer Lett. 2004; 214: 1-9.
5. van Dorst E.B.L. et al.; J. Clin. Pathol. 1998; 51: 679-684.
6. Barak V, et al.; Clin Biochem. 2004 ; 37(7):529-40.

Warranty

No products or “Instructions For Use (IFU)” are to be construed as a recommendation for use in violation of any patents. We make no representations, warranties or assurances as to the accuracy or completeness of information provided on our IFU or website. Our warranty is limited to the actual price paid for the product. ScyTek Laboratories, Inc. is not liable for any property damage, personal injury, time or effort or economic loss caused by our products.

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