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

Carcinoembryonic Antigen, Pan; Clone COL-1

Catalog Number	Format	Volume
A00135-0002	(Ready-To-Use)	2 ml
A00135-0007	(Ready-To-Use)	7 ml
A00135-0025	(Ready-To-Use)	25 ml
A00135-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 1:100-200

Species: Mouse

Immunogen: BALB/c mice were injected with an extract of human colon carcinoma.

Clone: COL-1

Isotype: IgG1 / Kappa

Format: Ready-To-Use antibody has been pre-titered 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 phosphate buffered saline containing 1% BSA.

Specificity: This antibody labels the CEA-positive glycocalyx surface of gastrointestinal cells and is useful for the identification of colon carcinomas.

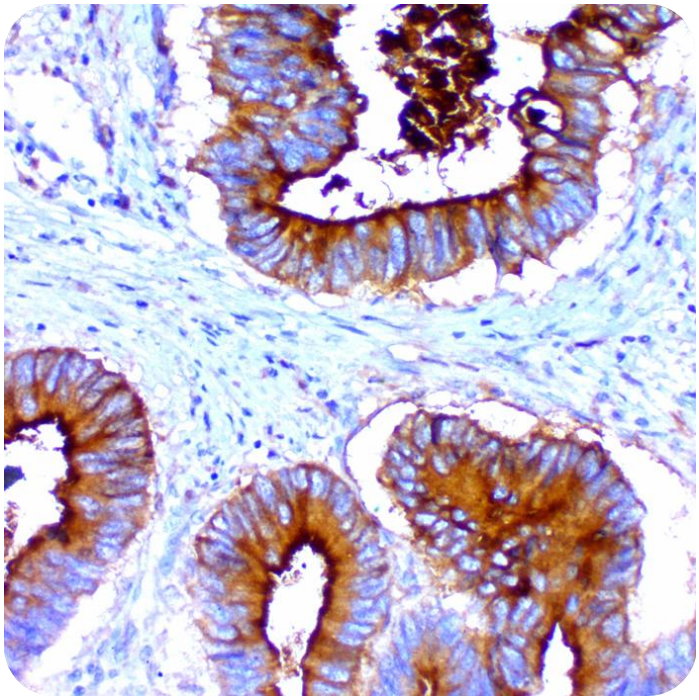
Background: Carcinoembryonic antigen (CEA) is characterized as a glycosylated cell surface glycoprotein which is involved in cell adhesion. CEA from various tumors display different carbohydrate contents. CEA is capable of both homophilic (CEA binding to CEA) and heterophilic (CEA binding to non-CEA molecules) interactions. CEA has been shown to be a member of a family of 8-10 cross-reactive iso-antigens which can be detected in a variety of normal and tumor tissue types.
CEA immunostaining may assist in identifying the histogenesis of epithelial tumors in several morphologic categories. However, differential reactivity's of the CEA monoclonal and polyclonal antibody panel have been reported.
CEA is a clinically important marker for adenocarcinomas, notably in the gastrointestinal tract, including colonic and pancreatic carcinomas. In addition, it may be important as a marker for disease recurrence in patients undergoing curative intent resection of a colorectal cancer primary.

Species Reactivity: Human. Others not known.
Positive Control: Colon Adenocarcinoma.
Cellular Localization: Cytoplasm and Cell Surface.
Microbiological State: Nonsterile

Materials and Reagents Required but not Provided

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

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



Human colon adenocarcinoma metastasized to lung, stained with Ultra-Tek HRP and DAB Chromogen

Procedure

1. **Tissue Section Pretreatment (Highly Recommended):** Staining of formalin fixed paraffin embedded tissue sections is significantly enhanced by pretreatment with Tris-EDTA HIER Solution (10x) pH 9.0 (ScyTek catalog# TES500) or Citrate Plus (10x) HIER Solution (ScyTek catalog# CPL500)

2. **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.

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

Storage: 2° C 8° C

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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

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2. Zoubir F, Zeromski J, Sikora J, Szmeja J, Hedin A, Hammarström S. Tumor specificity of monoclonal antibodies to carcinoembryonic antigen. Tumor Biol 1990;11:5-19.
3. Larsson Å, Ghosh R, Hammarström S. Relative positions of some epitopes on carcinoembryonic antigen. Cancer Immunol. Immunother 1989;30:92-6.
4. Hammerstrom S, Shively JE, Paxton RJ, Beatty BG, Larsson Å, Ghosh R, et al. Antigenic sites in carcinoembryonic antigen. Cancer Res 1989;49:4852-8.
5. Nap M, Hammarström M-L, Börmer O, Hammarström S, Wagener C, Handt S, et al. Specificity and affinity of monoclonal antibodies against carcinoembryonic antigen. Cancer Res 1992; 52: 2329-39.
6. Duffy MJ. Carcinoembryonic Antigen as a Marker for Colorectal Cancer: Is It Clinically Useful? Clin.Chem 2001;47: 4624-630.

Warranty

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