Carcinoembryonic Antigen (CEA {P})

Prediluted Rabbit Polyclonal Antibody

Control Number: 901-009IP-073115

Catalog Number: IP 009 G10

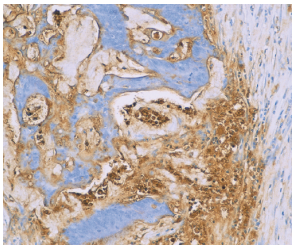
Description: 10 ml, predilute

Intended Use:

For In Vitro Diagnostic Use

Summary and Explanation:

Carcinoembryonic antigen antibody reacts with CEA and CEA-like proteins such as NCA (non-specific cross-reacting antigen), NCA2 and biliary glycoprotein (BGP1). In all tissues, the NCA of neutrophil granulocytes are stained positive. In colon adenocarcinoma, the antibody labels the cytoplasm of the tumor cells strongly. In the normal colon, the luminal enterocytes is strongly labelled. In breast carcinoma, a low percentage of glandular epithelial cells are stained. Gland lumina and some epithelial cell membranes in the normal breast tissue show positive staining. In the liver, the biliary canaliculi are positive. In general, CEA will mark adenocarcinoma of the stomach, colon, lung and pancreas; CEA is weakly or occasionally positive (less than 10%) for prostate cancer, bladder cancer and hepatoma. CEA is negative for squamous cell carcinoma of the skin and esophagus, mesothelioma, lymphoma, melanoma and sarcoma.



Colon cancer stained with CEA antibody.

Principle of Procedure:

Antigen detection in tissues and cells is a multi-step immunohistochemical process. The initial step binds the primary antibody to its specific epitope. After labeling the antigen with a primary antibody, an enzyme labeled polymer is added to bind to the primary antibody. This detection of the bound antibody is evidenced by a colorimetric reaction.

Source: Rabbit polyclonal

Species Reactivity: Human; others not tested

Clone: N/A

Isotype: N/A

Antibody Category: Carcinoma

Epitope/Antigen: CEA

Total Protein Concentration: N/A

Cellular Localization: Cytoplasmic

Positive Control: Colon carcinoma

Normal Tissue: Colon

Abnormal Tissue: Colon cancer, pancreatic cancer

Known Applications:

Immunohistochemistry (formalin-fixed paraffin-embedded tissues)

Supplied As: Buffer with protein carrier and preservative.

Storage and Stability:

Store at 2ºC to 8ºC. Do not use after expiration date printed on vial. If reagents are stored under conditions other than those specified in the package insert, they must be verified by the user. Diluted reagents should be used promptly; any remaining reagent should be stored at 2ºC to 8ºC.

Protocol Recommendations:

Pretreatment Solution (recommended): N/A

Pretreatment Protocol: N/A

Peroxide Block: Block for 5 minutes at RT.

Protein Block:

Optional: Incubate for 10-15 minutes at RT.

Primary Antibody: Incubate for 30 minutes at RT.

Secondary: N/A

Tertiary: Incubate for 30 minutes at RT.

Chromogen: Incubate for 5 minutes with DAB at RT.

Counterstain:

1. Rinse with deionized water.
2. Incubate for 5 minutes with automated Hematoxylin.
3. Rinse with TBS Buffer for 1 minute followed by a rinse with deionized water.

Quality Statement:

Biocare protocols have been standardized using in-house antibodies, detection and accessory reagents for use on the intelliPATH FLX automated stainer. Recommended staining protocols are specified in the datasheet of the antibody of interest. Pre-optimized intelliPATH FLX protocols with preset parameters can be displayed, printed and edited according to the procedure in the operator's manual. Refer to the operator's manual for additional instruction to navigate intelliPATH FLX software and stainer. Use TBS for washing steps unless otherwise specified.

Performance Characteristics:

The optimum antibody dilution and protocols for a specific application can vary. These include, but are not limited to: fixation, heat-retrieval method, incubation times, tissue section thickness and detection kit used. Due to the superior sensitivity of these unique reagents, the recommended incubation times and titers listed are not applicable to other detection systems, as results may vary. The data sheet recommendations and protocols are based on exclusive use of Biocare products. Ultimately, it is the responsibility of the investigator to determine optimal conditions. These products are tools that can be used for interpretation of morphological findings in conjunction with other diagnostic tests and pertinent clinical data by a qualified pathologist.

Quality Control:

Refer to NCCLS Quality Assurance for Immunocytochemistry approved guidelines, December 1999 MM4-A Vol.19 No.26 for more information about tissue controls.

Precautions:

This antibody contains less than 0.1% sodium azide. Concentrations less than 0.1% are not reportable hazardous materials according to U.S. 29 CFR 1910.1200, OSHA Hazard communication and EC Directive 91/155/EC.

Sodium azide (NaN3) used as a preservative is toxic if ingested. 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. (Center for Disease Control, 1976, National Institute of Occupational Safety and Health, 1976)

Specimens, before and after fixation, and all materials exposed to them should be handled as if capable of transmitting infection and disposed of with proper precautions. Never pipette reagents by mouth and avoid contacting the skin and mucous membranes with reagents and specimens. If reagents or specimens come in contact with sensitive areas, wash with copious amounts of water.

Microbial contamination of reagents may result in an increase in nonspecific staining. Incubation times or temperatures other than those specified may give erroneous results. The user must validate any such change. The MSDS is available upon request.

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Troubleshooting:

Follow the antibody specific protocol recommendations according to data sheet provided. If atypical results occur, contact Biocare's Technical Support at 1-800-542-2002.

References:

1. Sheahan K, O'Brien MJ, Burke B, Dervan PA, O'Keane JC, Gottlieb LS, et al. Differential reactvities of carcinoembryonic antigen(CEA) and CEA-related monoclonal and polyclonal antibodies in common epithelial malignancies. Am J Clin Pathol 1990;94:157-64.

2. Nap M, Hoor KAT, Fleuren GJ. Cross-reactivity with normal antigens in commercial anti-CEA sera, used for immunohistology. The need for tissue controls and absorptions. Am J Clin Pathol 1983;79:25-31.

3. Nap M, Keuning H, Burtin P, Oosterhuis JW, Fleuren GJ. CEA and NCA in benign and malignant breast tumors. Am J. clin Pathol 1984;82:526-34.

4. Center for Disease Control Manual. Guide: Safety Management, NO. CDC-22, Atlanta, GA. April 30, 1976 "Decontamination of Laboratory Sink Drains to Remove Azide Salts."

5. National Committee for Clinical Laboratory Standards (NCCLS). Protection of laboratory workers from infectious diseases transmitted by blood and tissue; proposed guideline. Villanova, PA 1991;7(9). Order code M29-P.

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