Carcinoembryonic Antigen (CEA{M})
Concentrated and Prediluted Monoclonal Antibody
Control Number: 902-058-090717

Catalog Number:    ACR 058 A, B, C                        APR 058 AA
Description:       0.1, 0.5, 1.0 ml, concentrated          6.0 ml, prediluted
Dilution:          1:100                                 Ready-to-use
Diluent:           Da Vinci Green                       N/A

Intended Use:
For Research Use Only. Not for use in diagnostic procedures.

Summary and Explanation:
The CEA gene family belongs to the immunoglobulin gene superfam-
ily (IgSF) and comprises a large number of genes. The cell surface
associated CEA proteins are heavily glycosylated, abundantly
expressed and multifunctional. The CEA (CD66e) COL-1 clone shows
no detectable reactivity for other CEA family members such as NCA or
BGP. COL-1 is useful in detecting early foci of gastric carcinoma and
distinguishing pulmonary adenocarcinomas from mesothelioma. It
stains many types of adenocarcinoma, but does not stain benign
glands, stroma, or malignant prostatic cells. Normal colon, without
colon disease, is unreactive, but a weak reactivity was in normal-
appearing mucosa several centimeters remote from colon cancer (6).

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 antibody with a
primary antibody, a secondary antibody is added to bind to the primary
antibody. An enzyme label is then added to bind to the secondary
antibody; this detection of the bound antibody is evidenced by a
colorimetric reaction.

Source: Mouse monoclonal

Species Reactivity: Human; others not tested.

Clone: COL-1

Isotype: IgG2a/kappa

Total Protein Concentration: ~10 mg/ml. Call for lot specific Ig
concentration.

Epitope/Antigen: CEA

Cellular Localization: Cytoplasmic and luminal membrane

Positive Control: Colon carcinoma

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.

Staining Protocol Recommendations:

Peroxide Block: Block for 5 minutes with Biocare's Peroxidized 1.

Pretreatment: Perform heat retrieval using Biocare's Diva Decloaker.
Refer to the Diva Decloaker product data sheet for specific
instructions.

Protein Block (Optional): Incubate for 5-10 minutes at RT with
Biocare's Background Pusisher.

Primary Antibody: Incubate for 30 minutes at RT

Probe: Incubate for 10 minutes at RT with a secondary probe.

Polymer: Incubate for 10-20 minutes at RT with a tertiary polymer.

Chromogen:
Incubate for 5 minutes at RT with Biocare's DAB-OR. Incubate for 5-7
minutes at RT with Biocare's Warp Red.

Counterstain:
Counterstain with hematoxylin. Rinse with deionized water. Apply
Tacha's Bluing Solution for 1 minute. Rinse with deionized water.

Technical Note:
This antibody has been standardized with Biocare's MACH 4 detection
system. Use TBS buffer for washing steps.

Limitations:
This product is provided for Research Use Only (RUO) and is not for
use in diagnostic procedures. Suitability for specific applications may
vary and it is the responsibility of the end user to determine the
appropriate application for its use.

Precautions:
1. This antibody contains less than 0.1% sodium azide. Concentrations
less than 0.1% are not reportable hazardous material according to U.S.
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) (7)
2. 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. (8)
3. Microbial contamination of reagents may result in an increase in
nonspecific staining.
4. Incubation times or temperatures other than those specified may
give erroneous results. The user must validate any such change.
5. Do not use reagent after expiration date printed on the vial.
6. The SDS is available upon request and is located at
http://biocare.net.

Technical Support:
Contact Biocare's Technical Support at 1-800-542-2002 for questions
regarding this product.

References:
1. Luo W, et al. Association of an 80 kDa protein with C-CAM1
     cytoplasmic domain correlates with C-CAM1-mediated growth
2. Obrink B. CEA adhesion molecules: multifunctional proteins with
     26.
3. Scretan RA, Penn LZ, Stanners CP. Carcinoembryonic antigen, a
     human tumor marker, cooperates with Myc and Bcl-2 in cellular
4. Nollau P, et al. Expression of CD66a (human C-CAM) and other
     members of the carcinoembryonic antigen gene family of adhesion
     molecules in human colorectal adenomas. Cancer Res. 1997 Jun
     15;57(12):2354-7.
     members of the human carcinoembryonic antigen gene family. Cell
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References Cont’d: