CD24
Concentrated Monoclonal Antibody

Catalog Number: ACR 323 A
Description: 0.1 ml, concentrated
Dilution: 1:100-1:200
Diluent: Van Gogh Yellow

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

Summary and Explanation:
CD24 (30-70 kDa molecular weight) is a two-chain glycosylphosphatidylinositol (GPI) anchored glycoprotein, that acts as a mucin-like adhesion molecule. CD24 has been shown to functionally enhance the metastatic potential of malignant-cells, as it has been also identified as a ligand of P-selectin, an adhesion receptor on activated endothelial cells and platelets (2). CD24 expression has been reported to be a potentially significant marker for diagnosis of a wide variety of human cancers (3). According to studies, elevated CD24 membranous expression and, in particular, cytoplasmic staining seem to predict malignant transformation. CD24 has been reported as a prognostic marker for breast cancer and more specifically for tamoxifen-resistant breast cancer cases. Further studies have shown a subpopulation (CD44+/CD24-) of breast cancer cells to have stem/progenitor cell properties (3).

Source: Mouse monoclonal
Species Reactivity: Human; others not tested
Clone: SN3b
Isotype: IgM/kappa

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

Epitope/Antigen: CD24

Cellular Localization: Cytoplasmic and/or cell membrane

Positive Control: Some breast cancers

Known Applications:
Immunohistochemistry (formalin-fixed paraffin-embedded tissues)

Supplied As: Buffer with protein carrier and preservative

Storage and Stability:
Store at 2°C to 8°C. 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 2°C to 8°C.

Staining Protocol Recommendations:

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

Pretreatment Solution (recommended): Diva or Reveal

Pretreatment Protocol:
Heat Retrieval Method:
Preheat the retrieval solution to 95°C for 30 minutes in Biocare's Decloaking Chamber. Then, place slides into the preheated solution and retrieve under pressure at 95°C for 40 minutes; Alternatively, steam tissue sections for 45-60 minutes or use a water bath at 95°C for 40 minutes. Allow solution to cool for 20 minutes then wash in distilled water.

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

Primary Antibody: Incubate for 30 minutes at RT.

Probe: N/A

Polymer: Incubate for 30 minutes at RT with a secondary-conjugated 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 2 detection system. It can also be used on an automated staining system and with other Biocare polymer detection kits. 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 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) (4)
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. (5)
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 the expiration date printed on the vial.
6. The MSDS is available upon request and is located at http://biocare.net/support/msds/.

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

References: