Technical Data Sheet

APC Mouse Anti-Human CD326 (EpCAM)

Product Information

Material Number: 566842
Alternate Name: EGP-2; EGP314; EGP40; EPCAM; ESA; GA733-2; KSA; M4S1; MIC18; MK-1; TACSTD1; TROP1; adenocarcinoma-associated antigen
Size: 50 µg
Concentration: 0.2 mg/ml
Clone: 9C4
Immunogen: Human breast carcinoma Cell Line
Isotype: Mouse (BALB/c) IgG2b, κ
Reactivity: QC Testing: Human
Storage Buffer: Aqueous buffered solution containing ≤0.09% sodium azide.

Description

The 9C4 monoclonal antibody specifically binds to human epithelial cell adhesion molecule (EpCAM), also known as adenocarcinoma associated antigen and CD326. EpCAM is an approximately 40-kDa type 1 transmembrane glycoprotein and adhesion molecule that mediates intercellular interactions via homotypic adhesion. The epithelial cells present in non-squamous epithelia and tumors derived from such cells show EpCAM expression. Tumors arising from non-epithelial cells, such as lymphoma, mesothelioma, neuroblastoma, and melanoma, do not express EpCAM. The normal epithelial cells reactive with anti-EpCAM antibodies are those present in the (lower) respiratory tract; the (lower) gastrointestinal tract; tubules in the kidney; the surface epithelium of the ovary; the exocrine and endocrine pancreas; secondary germ cells of telogenic hair follicles; and secretory tubules of sweat glands in the skin, whereas the epidermis is negative. In addition, all epithelial cells in the thyroid and epithelial cells in the thymus show EpCAM expression, while the outer cortex and Hassall’s corpuscles have low expression. EpCAM is expressed on a variety of stem and progenitor cells, and its down-regulation is associated with decreased proliferation and differentiation toward endoderm and mesoderm lineages.

Flow cytometric analysis of CD326 (EpCAM) expression on human colorectal adenocarcinoma cell line. Cells from the human HT-29 (Colorectal Carcinoma, ATCC HTB-38) cell line were stained with APC Mouse IgG2b, κ Isotype Control (Cat. No. 565381; dashed line histogram) or APC Mouse Anti-Human CD326 (EpCAM) antibody (Cat. No. 566842; solid line histogram) at 1 µg/test. BD Via-Probe™ Cell Viability 7-AAD Solution (Cat. No. 555815/555816) was added to cells right before analysis. The histogram showing CD326 (EpCAM) expression [or Ig Isotype control staining] was derived from gated events with the forward and side-light scatter characteristics of viable (7-AAD-negative) cells. Flow cytometry and data analysis were performed using a BD LSRFortessa™ X-20 Cell Analyzer System and FlowJo™ software. Data shown on this Technical Data Sheet are not lot specific.

Preparation and Storage

The monoclonal antibody was purified from tissue culture supernatant or ascites by affinity chromatography. The antibody was conjugated to APC under optimum conditions, and unconjugated antibody and free APC were removed. Store undiluted at 4°C and protected from prolonged exposure to light. Do not freeze.

Application Notes

Application

- Flow cytometry Routinely Tested
### Suggested Companion Products

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<th>Catalog Number</th>
<th>Name</th>
<th>Size</th>
<th>Clone</th>
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<td>Stain Buffer (FBS)</td>
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<td>565381</td>
<td>APC Mouse IgG2b, κ Isotype Control</td>
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<tr>
<td>555815</td>
<td>Cell Viability Solution</td>
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<tr>
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<td>Cell Viability Solution</td>
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### Product Notices

1. Since applications vary, each investigator should titrate the reagent to obtain optimal results.
2. An isotype control should be used at the same concentration as the antibody of interest.
4. This APC-conjugated reagent can be used in any flow cytometer equipped with a dye, HeNe, or red diode laser.
5. For fluorochrome spectra and suitable instrument settings, please refer to our Multicolor Flow Cytometry web page at www.bdbiosciences.com/colors.
6. Caution: Sodium azide yields highly toxic hydrazoic acid under acidic conditions. Dilute azide compounds in running water before discarding to avoid accumulation of potentially explosive deposits in plumbing.
7. Please refer to http://regdocs.bd.com to access safety data sheets (SDS).

### References

- Ng YY, Ang SN, Chan JK, Choo AB. Characterization of epithelial cell adhesion molecule as a surface marker on undifferentiated human embryonic stem cells. *Stem Cells*. 2010; 28(1):29-35. (Biolog)