Technical Data Sheet

Purified Mouse Anti-Human CD66d/e

Product Information

- Material Number: 551477
- Alternate Name: CEA, carcinoembryonic antigen
- Size: 0.1 mg
- Concentration: 0.5 mg/ml
- Clone: COL-1
- Isotype: Mouse IgG2a, \(\kappa\)
- Reactivity: QC Testing: Human
- Workshop: VI MA84
- Storage Buffer: Aqueous buffered solution containing \(\leq 0.09\%\) sodium azide.

Description

The COL-1 monoclonal antibody specifically recognizes a 35 and a 180 kDa glycosylphosphatidylinositol-anchored glycoprotein present on granulocytes and epithelial cells. Antibody COL-1 was studied as recognizing CD66d and CD66e in the VI Human Leukocyte Differentiation Workshop. CD66 antigens also known as the carcinoembryonic antigen (CEA) family of molecules, are closely related to the immunoglobulin superfamily of glycoproteins. Studies on CD66 molecules suggest a potential adhesion function in vivo. These molecules exhibit both homophilic and heterophilic ashesion. CEA family members may be involved in transmembrane signalling and activation of neutrophils.

Flow cytometric profile of CD66d/e expression on human granulocytes. Whole blood was stained with either Purified Mouse IgG2a, \(\kappa\) Isotype Control (Cat. No. 555571; dashed line histogram) or Purified Mouse Anti-Human CD66d/e (Cat. No. 551477; solid line histogram). Three-step staining was carried out with Biotin Goat Anti-Mouse Ig (Multiple Adsorption) (Cat. No. 553999) and PE Streptavidin (Cat. No. 554061). Erythrocytes were lysed with BD FACS™ Lysing Solution (Cat. No. 349202). Fluorescence histograms were derived from gated events with the forward and side-light scatter characteristics of viable granulocytes.

Preparation and Storage

Store undiluted at 4°C.

The monoclonal antibody was purified from tissue culture supernatant or ascites by affinity chromatography.

Application Notes

Application

- Flow cytometry Routinely Tested

Suggested Companion Products

<table>
<thead>
<tr>
<th>Catalog Number</th>
<th>Name</th>
<th>Size</th>
<th>Clone</th>
</tr>
</thead>
<tbody>
<tr>
<td>555571</td>
<td>Purified Mouse IgG2a, (\kappa) Isotype Control</td>
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<td>G155-178</td>
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<td>554061</td>
<td>PE Streptavidin</td>
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<td>553999</td>
<td>Biotin Goat Anti-Mouse Ig (Multiple Adsorption)</td>
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<td>349202</td>
<td>BD FACSTM Lysing Solution</td>
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<td>Stain Buffer (FBS)</td>
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<tr>
<td>554657</td>
<td>Stain Buffer (BSA)</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.
3. 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.
4. Sodium azide is a reversible inhibitor of oxidative metabolism; therefore, antibody preparations containing this preservative agent must not be used in cell cultures nor injected into animals. Sodium azide may be removed by washing stained cells or plate-bound antibody or dialyzing soluble antibody in sodium azide-free buffer. Since endotoxin may also affect the results of functional studies, we recommend the NA/LE (No Azide/Low Endotoxin) antibody format, if available, for in vitro and in vivo use.

References

Siler K, Eggensperger D, Hand PH. Therapeutic efficacy of a high-affinity anticarcinoembryonic antigen monoclonal antibody (COL-1). *Biotechnol Ther.* 1993; 4((3-4)):163-181. (Biology)