Technical Data Sheet

BUV395 Mouse Anti-Human CD24

Product Information

Material Number: 566221
Alternate Name: Heat Stable Antigen Homologue (HSA); Ba-1; CD24A
Size: 25 Tests
Vol. per Test: 5 µl
Clone: ML5
Isotype: Mouse IgG2a, κ
Reactivity: QC Testing: Human
Workshop: IV B243; V CD24.5
Storage Buffer: Aqueous buffered solution containing ≤0.09% sodium azide.

Description

The ML5 monoclonal antibody specifically binds to CD24 which is also known as CD24A, signal transducer CD24, small cell lung carcinoma cluster 4 antigen, or BA-1. CD24 is a 35-70 kDa glycoprophosphatidylinositol (GPI)-linked glycoprotein whose glycosylation pattern is highly variable and cell-type dependent. CD24 is expressed on neutrophils, eosinophils, dendritic cells, neural cells, epithelial cells, muscle cells, and many types of cancer cells. CD24 functions as an adhesion receptor. Several different ligands have been identified for CD24 including CD62P (P-selectin) which is expressed on activated platelets and activated endothelium. CD24 is variably expressed on all B lineage cells, except plasma cells, and can play a role in regulating the activation, proliferation or differentiation of these cells.

The antibody was conjugated to BD Horizon BUV395 which is part of the BD Horizon Brilliant™ Ultraviolet family of dyes. With an Ex Max near 348 nm and an Em Max near 395 nm, BD Horizon BUV395 can be excited by the ultraviolet laser (355 nm) laser and detected with a 379/28 filter. This dye has been exclusively developed by BD Biosciences as an optimal dye for use on instruments equipped with the ultraviolet laser and has virtually no spillover into any other detector.

Preparation and Storage

Two-color flow cytometric analysis of CD24 expression on human peripheral blood lymphocytes. Whole blood was stained with BD Horizon™ PE-CF594 Mouse Anti-Human CD19 antibody (Cat. No. 562294/562321) and either BD Horizon™ BUV395 Mouse IgG2a, κ Isotype Control (Cat. No. 563809; Left Plot) or BD Horizon BUV395 Mouse Anti-Human CD24 antibody (Cat. No. 563818/566221; Right Plot). The erythrocytes were lysed with BD FACS™ Lysing Solution (Cat. No. 349202). The two-color flow cytometric dot plots show the correlated expression patterns of CD24 (or Ig Isotype control staining) versus CD19 for gated events with the forward and side light-scatter characteristics of intact lymphocytes. Flow cytometric analysis was performed using a BD™ LSR II Flow Cytometer System.

Preparation and Storage

Store undiluted at 4°C and protected from prolonged exposure to light. Do not freeze.

The monoclonal antibody was purified from tissue culture supernatant or ascites by affinity chromatography. The antibody was conjugated to the dye under optimum conditions and unconjugated antibody and free dye were removed.

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Recommended Assay Procedure:
BD™ CompBeads can be used as surrogates to assess fluorescence spillover (Compensation). When fluorochrome conjugated antibodies are bound to CompBeads, they have spectral properties very similar to cells. However, for some fluorochromes there can be small differences in spectral emissions compared to cells, resulting in spillover values that differ when compared to biological controls. It is strongly recommended that when using a reagent for the first time, users compare the spillover on cells and CompBead to ensure that BD Comp beads are appropriate for your specific cellular application.

For optimal and reproducible results, BD Horizon Brilliant Stain Buffer should be used anytime two or more BD Horizon Brilliant dyes are used in the same experiment. Fluorescent dye interactions may cause staining artifacts which may affect data interpretation. The BD Horizon Brilliant Stain Buffer was designed to minimize these interactions. More information can be found in the Technical Data Sheet of the BD Horizon Brilliant Stain Buffer (Cat. No. 563794/566349) or the BD Horizon Brilliant Stain Buffer Plus (Cat. No. 566385).

Suggested Companion Products

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<th>Size</th>
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<td>566385</td>
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Product Notices
1. This reagent has been pre-diluted for use at the recommended Volume per Test. We typically use $1 \times 10^6$ cells in a 100-µl experimental sample (a test).
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. For fluorochrome spectra and suitable instrument settings, please refer to our Multicolor Flow Cytometry web page at wwwbdbiosciences.com/colors.
5. BD Horizon Brilliant Ultraviolet 395 is covered by one or more of the following US patents: 8,158,444; 8,575,303; 8,354,239.
6. BD Horizon Brilliant Stain Buffer is covered by one or more of the following US patents: 8,110,673; 8,158,444; 8,575,303; 8,354,239.
7. CFTM is a trademark of Biotium, Inc.
8. Please refer to http://regdocs.bd.com to access safety data sheets (SDS).

References