Technical Data Sheet

BV786 Mouse Anti-Human CD49b

Product Information

Material Number: 564120
Alternate Name: Integrin α2 chain; ITGA2; VLA-2 alpha; Platelet GP1a; Collagen receptor; BR
Size: 100 Tests
Vol. per Test: 5 µl
Clone: 12F1
Immunogen: Human PBMC and Platelets
Isootype: Mouse (BALB/c) IgG2a, κ
Reactivity: QC Testing: Human
Workshop: V S220
Storage Buffer: Aqueous buffered solution containing BSA and ≤0.09% sodium azide.

Description

The 12F1 monoclonal antibody specifically binds to CD49b. CD49b is also known as the integrin α2 chain (VLA-α2), a member of the integrin family of extracellular matrix and cell-cell adhesion receptors. VLA-α2 is non-covalently associated with VLA-β1 chain (CD29) in the VLA-2 complex. α2 is expressed on numerous cell types including activated T cells, platelets, and long-term cultivated T cells. α2β1 is a well-established receptor for collagen. This antibody is useful for studies of integrin expression and function.

The antibody was conjugated to BD Horizon™ BV786 which is part of the BD Horizon Brilliant™ Violet family of dyes. This dye is a tandem fluorochrome of BD Horizon BV421 with an Ex Max of 405-nm and an acceptor dye with an Em Max at 786-nm. BD Horizon BV786 can be excited by the violet laser and detected in a filter used to detect Cy™7-like dyes (eg, 780/60-nm filter).

Flow cytometric analysis of CD49b expression on human peripheral blood platelets. Platelets were stained with either BD Horizon™ BV786 Mouse IgG2a, κ Isotype Control (Cat. No. 563732; dashed line histogram) or BD Horizon BV786 Mouse Anti-Human CD49b antibody (Cat. No. 564120; solid line histogram). 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 with BD Horizon™ BV786 under optimum conditions, and unconjugated antibody and free BD Horizon™ BV786 were removed.

Application Notes

Application

| Flow cytometry | Routinely Tested |

Recommended Assay Procedure:

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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<thead>
<tr>
<th>Catalog Number</th>
<th>Name</th>
<th>Size</th>
<th>Clone</th>
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<tbody>
<tr>
<td>554656</td>
<td>Stain Buffer (FBS)</td>
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<tr>
<td>554657</td>
<td>Stain Buffer (BSA)</td>
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<tr>
<td>563732</td>
<td>BV786 Mouse IgG2a, κ Isotype Control</td>
<td>50 µg</td>
<td>G155-178</td>
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<tr>
<td>563794</td>
<td>Brilliant Stain Buffer</td>
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<tr>
<td>566349</td>
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<tr>
<td>566385</td>
<td>Brilliant Stain Buffer Plus</td>
<td>1000 Tests</td>
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</table>

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. Source of all serum proteins is from USDA inspected abattoirs located in the United States.
5. For fluorochrome spectra and suitable instrument settings, please refer to our Multicolor Flow Cytometry web page at www.bdbiosciences.com/colors.
6. Cy is a trademark of GE Healthcare.
7. BD Horizon Brilliant Violet 786 is covered by one or more of the following US patents: 8,110,673; 8,158,444; 8,227,187; 8,455,613; 8,575,303; 8,354,239.
8. 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.

References


