Product Information

Material Number: 565600
Alternate Name: \( \beta_4 \) integrin; Integrin \( \beta_4 \) chain; Integrin beta-4; Itgb4; ITB4
Size: 50 µg
Concentration: 0.2 mg/ml
Clone: 346-11A
Immunogen: Tumor-associated antigen TSP-180 from a BALB/c mouse lung carcinoma
Isotype: Rat (F344) IgG2a, \( \kappa \)
Reactivity: Mouse
Storage Buffer: Aqueous buffered solution containing \( \leq 0.09\% \) sodium azide.

Description

The 346-11A monoclonal antibody specifically recognizes an epitope at the beginning of the cysteine-rich repeat region of the 200-kDa integrin \( \beta_4 \) chain (CD104), which is found on the cell surface as a heterodimeric complex with the integrin \( \alpha_6 \) chain (CD49f). The \( \alpha\beta_4 \) (CD49f/CD104) complex binds to laminins and is expressed on the basal surface of a variety of epithelial cell types, particularly on stratified squamous epithelia, and is also found in peripheral nerves, in certain subsets of endothelial cells, and on immature thymocytes. It has also been identified on a number of tumor tissues and participates in tumor progression events. Localization of both human and mouse epidermal \( \alpha\beta_4 \) integrin to hemidesmosomes suggests that this heterodimer plays a role in epidermal adhesion to the basement membrane.

The antibody was conjugated to BD Horizon BB515 which was developed exclusively by BD Biosciences. With an excitation max of 490 nm and an emission max of 515 nm, BD Horizon BB515 can be excited by the 488 nm laser and detected in a standard FITC set (eg, 530/30-nm filter). This dye provides a much brighter alternative to FITC with less spillover into the PE detector.

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™ BB515 under optimum conditions and unconjugated antibody was removed.

Application Notes

Application

Flow cytometry

Recommended Assay Procedure:

For optimal results, it is recommended to perform 2 washes after staining with antibodies. Cells may be prepared, stained with antibodies and washed twice with wash buffer per established protocols for immunofluorescent staining, prior to acquisition on a flow cytometer. Performing fewer than the recommended wash steps may lead to increased spread of the negative population.
Suggested Companion Products

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<th>Name</th>
<th>Size</th>
<th>Clone</th>
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<tr>
<td>554656</td>
<td>Stain Buffer (FBS)</td>
<td>500 mL</td>
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<tr>
<td>554657</td>
<td>Stain Buffer (BSA)</td>
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<tr>
<td>563794</td>
<td>Brilliant Stain Buffer</td>
<td>100 Tests</td>
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<td>553141</td>
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<td>2G4</td>
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<td>RM4-5</td>
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<td>561091</td>
<td>APC Rat Anti-Mouse CD4</td>
<td>25 µg</td>
<td>RM4-5</td>
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<td>553032</td>
<td>PE Rat Anti-Mouse CD8a</td>
<td>0.2 mg</td>
<td>53-6.7</td>
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<tr>
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<td>PE Rat Anti-Mouse CD8a</td>
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<td>PE Rat Anti-Mouse CD8a</td>
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<td>564418</td>
<td>BB515 Rat IgG2a, κ Isotype Control</td>
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Product Notices

1. Since applications vary, each investigator should titrate the reagent to obtain optimal results.
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 www.bdbiosciences.com/colors.
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6. An isotype control should be used at the same concentration as the antibody of interest.

References


BD Biosciences

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