BD Horizon™

Technical Data Sheet

BV711 Mouse Anti-Human CD132

Product Information

Material Number: 563129
Alternate Name: IL2RG; IL-2RG; IL-2Rγ; Common gamma chain; γc; CIDX; SCIDX; SCIDX1; IMD4
Size: 50 Tests
Vol. per Test: 5 µl
Clone: AG184
Isotype: Mouse IgG1, κ
Reactivity: QC Testing: Human
Workshop: VI C-100
Storage Buffer: Aqueous buffered solution containing BSA and ≤0.09% sodium azide.

Description

The AG184 monoclonal antibody specifically binds to the 65-70 kDa common γ subunit (γc) that is shared by the IL-2, IL-4, IL-7, IL-9, IL-15 and IL-21 receptor complexes. The γc receptor is a type 1 transmembrane glycoprotein that is constitutively expressed by most peripheral T and B lymphocytes, NK cells, monocytes and granulocytes. The cytoplasmic domain of the γc chain plays an important role in cytokine-mediated signal transduction. By immunofluorescent staining and flow cytometric analyses, the AG184 antibody has been shown to specifically recognize human γc expressed by cell lines including human γc gene-transfected cell lines which are known to express the human γc chain. The AG184 antibody can bind the γc chain in the receptors complexed with IL-2, IL-4, or IL-7, indicating that the antibody recognizes an epitope which is distinct from the cytokine binding site of the γc chain.

The antibody was conjugated to BD Horizon™ BV711 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 711-nm. BD Horizon™ BV711 can be excited by the violet laser and detected in a filter used to detect Cy™5.5 / Alexa Fluor® 700-like dyes (e.g., 712/20-nm filter). Due to the excitation and emission characteristics of the acceptor dye, there may be moderate spillover into the Alexa Fluor® 700 and PerCP-Cy™5.5 detectors. However, the spillover can be corrected through compensation as with any other dye combination.

Flow cytometric analysis of CD132 expression on human peripheral blood lymphocytes. Human whole blood was stained with either BD Horizon™ BV711 Mouse IgG1, κ Isotype Control (Cat. No. 563044; dashed line histogram) or with BD Horizon™ BV711 Mouse Anti-Human CD132 antibody (Cat. No. 563129; solid line histogram). Erythrocytes were lysed with BD Pharm Lyse™ Lysing Buffer (Cat. No. 555699). The fluorescence histograms were derived from gated events with the forward and side light-scatter characteristics of viable lymphocytes. Flow cytometry 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™ BV711 under optimum conditions, and unconjugated antibody and free BD Horizon™ BV711 were removed.

Application Notes

Application

| Flow cytometry | Routinely Tested |

BD Biosciences

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563129 Rev. 2
Recommended Assay Procedure:
For optimal and reproducible results, BD Horizon Brilliant Stain Buffer should be used anytime two or more BD Horizon Brilliant dyes (including BD OptiBuild Brilliant reagents) 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

<table>
<thead>
<tr>
<th>Catalog Number</th>
<th>Name</th>
<th>Size</th>
<th>Clone</th>
</tr>
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<tbody>
<tr>
<td>563044</td>
<td>BV711 Mouse IgG1, k Isotype Control</td>
<td>50 µg</td>
<td>X40</td>
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<tr>
<td>555899</td>
<td>Lysing Buffer</td>
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<tr>
<td>554656</td>
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<td>BD FACSTM Lysing Solution</td>
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<tr>
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<td>Stain Buffer (BSA)</td>
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<tr>
<td>563794</td>
<td>Brilliant Stain Buffer</td>
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<tr>
<td>566349</td>
<td>Brilliant Stain Buffer Plus</td>
<td>1000 Tests</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 x 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. Source of all serum proteins is from USDA inspected abattoirs located in the United States.
4. 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.
5. For fluorochrome spectra and suitable instrument settings, please refer to our Multicolor Flow Cytometry web page at www.bdbiosciences.com/colors.
6. Alexa Fluor® is a registered trademark of Molecular Probes, Inc., Eugene, OR.
7. Cy is a trademark of GE Healthcare.
8. BD Horizon Brilliant Violet 711 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.
9. 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
Kishimoto T, Tadamitsu Kishimoto .. et al., ed. Leucocyte typing VI : white cell differentiation antigens : proceedings of the sixth international workshop and conference held in Kobe, Japan, 10-14 November 1996. New York: Garland Pub.; 1997(Clone-specific)