Product Information

Material Number: 566689
Alternate Name: Lgp100; Lymphocyte antigen 9; Ly-9; Ly9; SLAM family member 3; SLAMF3; T100
Size: 50 µg
Concentration: 0.2 mg/ml
Clone: Ly9.7.144
Immunogen: Mouse Ly9 Transfected Cell Line
Isotype: Mouse (BALB/c) IgG1, κ
Reactivity: QC Testing: Mouse
Storage Buffer: Aqueous buffered solution containing ≤0.09% sodium azide.

Description

The LY9.7.144 monoclonal antibody specifically recognizes CD229 which is also known as SLAM family member 3 (SLAMF3), Lymphocyte antigen 9 (Ly-9), Lgp100, and T100. CD229 is a ~90-120 kDa type I transmembrane glycoprotein that is encoded by Ly9 (lymphocyte antigen 9) which belongs to the Signaling Lymphocytic Activation Molecule (SLAM) family within the immunoglobulin gene superfamily. The extracellular domain of CD229 contains four extracellular Ig-like domains (2 V-set and 2 C-set) extending in order from the N-terminus as V-C2-V-C2. The intracellular region of CD229 contains two ITSMs (immunoreceptor tyrosine-based switch motifs) and serves as a docking site for SH2-binding phosphatases and adapter molecules including SAP and EAT-2. CD229 is variably expressed on most thymocytes, T cells, NKT cells, B cells, NK cells, hematopoietic stem cells and progenitor cells, and monocytes. CD229 participates in homophilic adhesion interactions between these cells and in the regulation of their activation.

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 Alexa Fluor® 647 under optimum conditions, and unreacted Alexa Fluor® 647 was removed.

Flow cytometric analysis of CD229 expression on mouse splenocytes. Splenic leucocytes from BALB/c (Left Plot) or C57BL/6 (Right Plot) mice were preincubated with Purified Rat Anti-Mouse CD16/CD32 antibody (Mouse BD Fc Block™) (Cat. No. 553141/553142). The cells were then stained with either Alexa Fluor® 647 Mouse IgG1, κ Isotype Control (Cat. No. 565571; dashed line histogram) or Alexa Fluor® 647 Mouse Anti-Mouse CD229 antibody (Cat. No. 566689; solid line histogram) at 0.25 µg/test. The fluorescence histograms showing CD229 expression (or Ig Isotype control staining) were derived from gated events with the forward and side light-scatter characteristics of viable splenic leucocytes. Flow cytometric analysis was performed using a BD LSRFortessa™ X-20 Flow Cytometer System. Flow cytometry and data analysis were performed using a BD LSRFortessa™ Cell Analyzer System and FlowJo® software. Data shown on this Technical Data Sheet are not lot specific.
Suggested Companion Products

<table>
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<tr>
<th>Catalog Number</th>
<th>Name</th>
<th>Size</th>
<th>Clone</th>
</tr>
</thead>
<tbody>
<tr>
<td>553141</td>
<td>Purified Rat Anti-Mouse CD16/CD32 (Mouse BD Fc Block™)</td>
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<td>2.4G2</td>
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<tr>
<td>565571</td>
<td>Alexa Fluor® 647 Mouse IgG1 κ Isotype Control</td>
<td>50 µg</td>
<td>MOPC-21</td>
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<td>553142</td>
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<td>Stain Buffer (FBS)</td>
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<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. The Alexa Fluor®, Pacific Blue™, and Cascade Blue® dye antibody conjugates in this product are sold under license from Molecular Probes, Inc. for research use only, excluding use in combination with microarrays, or as analyte specific reagents. The Alexa Fluor® dyes (except for Alexa Fluor® 430), Pacific Blue™ dye, and Cascade Blue® dye are covered by pending and issued patents.
5. Alexa Fluor® is a registered trademark of Molecular Probes, Inc., Eugene, OR.
6. Alexa Fluor® 647 fluorochrome emission is collected at the same instrument settings as for allophycocyanin (APC).
7. For fluorochrome spectra and suitable instrument settings, please refer to our Multicolor Flow Cytometry web page at www.bdbiosciences.com/colors.

References