Technical Data Sheet

Purified Rat Anti-Mouse PIR-A/B

Product Information

Material Number: 550348
Size: 0.1 mg
Concentration: 0.5 mg/ml
Clone: 6C1
Immunogen: Recombinant mouse PIR-A1 extracellular domain peptide and the mouse myeloid cell line, WEH13
Isotype: Rat (LEW) IgG1, κ
Reactivity: QC Testing: Mouse
Storage Buffer: Aqueous buffered solution containing ≤0.09% sodium azide.

Description

The 6C1 antibody reacts with common epitopes of PIR-A and PIR-B (Paired Immunoglobulin-liked Receptors) in all mouse strains tested (A/J, BALB/cJ, C3H, C57BL/6, DBA/1, DBA/2, NZB, and SJL). PIR-A and PIR-B are type-I transmembrane glycoproteins containing six Ig-like domains. There are multiple PIR-A proteins which are activating receptors by virtue of their intracellular association with the ITAM (Immunoreceptor Tyrosine-based Activation Motif)- containing Fc receptor γ chain (FcRγ) in mast cells and macrophages. FcRγ expression is required for PIR-A cell-surface expression on dendritic cells, B cells, and myeloid lineages. In contrast, PIR-B is an inhibitory receptor which contains various ITIMs (Immunoreceptor Tyrosine-based Inhibitory Motifs) in its cytoplasmic domain. These receptors are expressed on B cells, granulocytes, mast cells, dendritic cells, and monocytes/macrophages, but not on thymocytes, T lymphocytes, erythroid lineage cells, or NK cells. The level of cell-surface expression of these receptors increases as a function of B-cell activation and myeloid- and B-lineage differentiation. The 6C1 antibody immunoprecipitates molecules of 85- and 125-kDa, which correspond to PIRA and PIR-B, respectively.

Preparation and Storage

The monoclonal antibody was purified from tissue culture supernatant or ascites by affinity chromatography.
Store undiluted at 4° C.

Application Notes

Application

Flow cytometry Routinely Tested
Immunoprecipitation Reported

Recommended Assay Procedure:
Mouse BD Fc Block™ (Cat. no. 553141/553142) should be used when staining with the 6C1 antibody, and a second-step antibody which does not cross-react with Mouse BD Fc Block™ (mAb 2.4G2, rat IgG2b, κ) must be used. We recommend biotinylated anti-rat IgG1 mAb RG11/39.4 mAb (anti-rat IgG1, Cat. no. 553890, both histograms), then Streptavidin-PE (Cat. no. 554061, both histograms). Flow cytometry was performed on a BD FACScan™ Flow Cytometry System.
(Cat. no. 553890) followed by a "bright" third-step reagent, such as Streptavidin-PE (Cat. no. 554061) for optimal staining. Other reported applications include immunoprecipitation.

**Suggested Companion Products**

<table>
<thead>
<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>
<td>0.1 mg</td>
<td>2.4G2</td>
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<tr>
<td>553890</td>
<td>Biotin Mouse Anti-Rat IgG1</td>
<td>0.5 mg</td>
<td>RG11/39.4</td>
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<tr>
<td>554061</td>
<td>PE Streptavidin</td>
<td>0.5 mg</td>
<td>(none)</td>
</tr>
<tr>
<td>553922</td>
<td>Purified Rat IgG1, κ Isotype Control</td>
<td>0.5 mg</td>
<td>R3-34</td>
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</tbody>
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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.

**References**


