**Mouse CXCR7/RDC-1 Antibody**

**Monoclonal Rat IgM Clone # 734110**

**Catalog Number:** MAB7167

### DESCRIPTION

**Species Reactivity**
- Mouse

**Specificity**
- Detects mouse CXCR7/RDC-1 in direct ELISAs.

**Source**
- Monoclonal Rat IgM Clone # 734110

**Purification**
- Protein A or G purified from hybridoma culture supernatant

**Immunogen**
- *E. coli*-derived recombinant mouse CXCR7/RDC-1 extracellular N-terminus and loops
  - Met1-Leu47, Ser103-Lys118, Lys184-Glu213, Leu274-Ala296
- Accession # P56485

**Formulation**
- Lyophilized from a 0.2 μm filtered solution in PBS with Trehalose. See Certificate of Analysis for details.

*Small pack size (SP) is supplied either lyophilized or as a 0.2 μm filtered solution in PBS.

### APPLICATIONS

**Please Note:** Optimal dilutions should be determined by each laboratory for each application. General Protocols are available in the Technical Information section on our website.

<table>
<thead>
<tr>
<th>Sample</th>
<th>Recommended Concentration</th>
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<tbody>
<tr>
<td>Flow Cytometry</td>
<td>2.5 μg/10⁶ cells</td>
</tr>
<tr>
<td>CyTOF-ready</td>
<td>Ready to be labeled using established conjugation methods. No BSA or other carrier proteins that could interfere with conjugation.</td>
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### DATA

**Flow Cytometry**
- Detection of CXCR7 in D3 Mouse Cell Line by Flow Cytometry. D3 mouse embryonic stem cell line was stained with Rat Anti-Mouse CXCR7/RDC-1 Monoclonal Antibody (Catalog # MAB7167, filled histogram) or isotype control antibody rat IgM (open histogram), followed by Allophycocyanin-conjugated Anti-Rat IgM Secondary Antibody.

**Flow Cytometry**
- Detection of CXCR7 in HEK293 Human Cell Line Transfected with eGFP and Mouse CXCR7/RDC-1 by Flow Cytometry. HEK293 human embryonic kidney cell line transfected with eGFP and Mouse CXCR7/RDC-1 were stained with Rat Anti-Mouse CXCR7/RDC-1 Monoclonal Antibody (Catalog # MAB7167) followed by Allophycocyanin-conjugated Anti-Rat IgM secondary antibody. Quadrant markers were set based on control antibody staining.

### PREPARATION AND STORAGE

**Reconstitution**
- Sterile PBS to a final concentration of 0.5 mg/mL.

**Shipping**
- The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below.
  - *Small pack size (SP) is shipped with polar packs. Upon receipt, store it immediately at -20 to -70 °C*

**Stability & Storage**
- Use a manual defrost freezer and avoid repeated freeze-thaw cycles.
  - 12 months from date of receipt, -20 to -70 °C as supplied.
  - 1 month, 2 to 8 °C under sterile conditions after reconstitution.
  - 6 months, -20 to -70 °C under sterile conditions after reconstitution.

### BACKGROUND

CXCR7 (CXC chemokine receptor 7; also GPRN1, RDC-1 and chemokine orphan receptor 1) is a 60 kDa member of the G-protein coupled receptor 1 family. It is expressed on multiple cell types, including neurons, T cells, NK cells, neutrophils, B cells plus angiogenic endothelial cells. CXCR7 forms both homodimers and heterodimers with CXCR4. It selectively binds I-TAC and SDF1, and appears to involve β-arrestin2 during signaling. Notably, a CXCR7:CXCR4 heterodimer shows increased responsiveness to SDF1, and I-TAC may actually block some SDF1-mediated migration activity. Mouse CXCR7 is a 7-transmembrane glycoprotein that is 362 amino acids (aa) in length. It contains a 47 aa N-terminal extracellular region plus a 43 aa C-terminal cytoplasmic domain. Over the collective extracellular domains (aa 1-47, 103-118, 184-213 and 274-296), mouse CXCR7 shares 97% and 91% aa identity with rat and human CXCR7, respectively.