

## DESCRIPTION

<b>Species Reactivity</b>	Mouse
<b>Specificity</b>	Detects mouse CXCR7/RDC-1 in direct ELISAs.
<b>Source</b>	Monoclonal Rat IgM Clone # 734110
<b>Purification</b>	IgM-specific Affinity-purified from hybridoma culture supernatant
<b>Immunogen</b>	<i>E. coli</i> -derived recombinant mouse CXCR7/RDC-1 extracellular N-terminus and loops Met1-Leu47, Ser103-Lys118, Lys184-Glu213, Leu274-Ala296 Accession # P56485
<b>Formulation</b>	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.

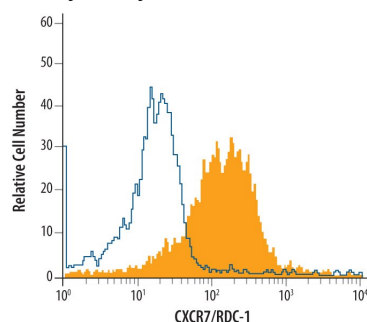
## APPLICATIONS

**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.

	<b>Recommended Concentration</b>	<b>Sample</b>
<b>Flow Cytometry</b>	2.5 µg/10 <sup>6</sup> cells	See Below
<b>CyTOF-ready</b>	Ready to be labeled using established conjugation methods. No BSA or other carrier proteins that could interfere with conjugation.	

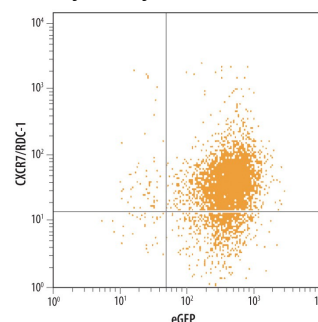
## DATA

### 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

<b>Reconstitution</b>	Sterile PBS to a final concentration of 0.5 mg/mL.
<b>Shipping</b>	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
<b>Stability &amp; Storage</b>	<b>Use a manual defrost freezer and avoid repeated freeze-thaw cycles.</b> <ul style="list-style-type: none"> <li>12 months from date of receipt, -20 to -70 °C as supplied.</li> <li>1 month, 2 to 8 °C under sterile conditions after reconstitution.</li> <li>6 months, -20 to -70 °C under sterile conditions after reconstitution.</li> </ul>

## 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  $\beta$ -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.