

## Spark Red™ 718 anti-mouse CD184 (CXCR4) Antibody

<b>Catalog# / Size</b>	146531 / 25 µg 146532 / 100 µg
<b>Clone</b>	L276F12
<b>Regulatory Status</b>	RUO
<b>Other Names</b>	Fusin, LESTR, Sdf1r, Cmkar4, PB-CKR, PBSF/SDF-1
<b>Isotype</b>	Rat IgG2b, κ
<b>Description</b>	CD184, also known as CXCR4, is a member of the G protein coupled receptor family that binds CXCL12 (SDF1). CXCR4 and CXCL12 play an important role in immune and inflammatory responses through the regulation of cell migration and growth. CXCR4 plays a crucial role in the pathogenesis of several autoimmune diseases such as atherosclerosis, rheumatoid arthritis, and wound healing. In addition, CXCR4 is the cofactor for fusion and entry of the T cell-tropic form of HIV-1.

### Product Details

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<b>Verified Reactivity</b>	Mouse
<b>Antibody Type</b>	Monoclonal
<b>Host Species</b>	Rat
<b>Immunogen</b>	Mouse CXCR4-transfected cells
<b>Formulation</b>	Phosphate-buffered solution, pH 7.2, containing 0.09% sodium azide
<b>Preparation</b>	The antibody was purified by affinity chromatography and conjugated with Spark Red™ 718 under optimal conditions.
<b>Concentration</b>	0.5 mg/mL
<b>Storage &amp; Handling</b>	The antibody solution should be stored undiluted between 2°C and 8°C, and protected from prolonged exposure to light. <b>Do not freeze.</b>
<b>Application</b>	<a href="#">FC - Quality tested</a>
<b>Recommended Usage</b>	Each lot of this antibody is quality control tested by <a href="#">immunofluorescent staining with flow cytometric analysis</a> . For flow cytometric staining, the suggested use of this reagent is ≤ 1.0 µg per million cells in 100 µL volume. It is recommended that the reagent be titrated for optimal performance for each application.  * Spark Red™ 718 has a maximum excitation of 697 nm and a maximum emission of 711 nm.
<b>Excitation Laser</b>	Red Laser (633 nm)
<b>Application Notes</b>	Additional reported applications (for the relevant formats) include: <i>in vivo</i> blocking <sup>1</sup>
<b>Application References</b>	1. Costa MJ, <i>et al.</i> 2018. <i>PLoS One</i> . 13:e0194688 (Block) <a href="#">PubMed</a>
<b>(PubMed link indicates BioLegend citation)</b>	
<b>RRID</b>	AB_3674995 (BioLegend Cat. No. 146531) AB_3674995 (BioLegend Cat. No. 146532)

### Antigen Details

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<b>Structure</b>	G-protein-coupled seven transmembrane receptor, 39.7 kD
<b>Distribution</b>	T lymphocytes, monocytes, macrophages, tissue-committed stem/progenitor cells (TCSCs), mast cells, vascular smooth muscle cells (VSMCs)
<b>Function</b>	Development of cardiovascular and central nervous system, hematopoiesis, and colonization of BM by fetal liver-derived hematopoietic stem cells (HSCs) during embryogenesis, homing and egress of CD34 <sup>+</sup> CXCR4 <sup>+</sup> progenitor cells from bone marrow, and their migration into peripheral tissues. Critical role in homing of cancer cells to specific metastatic sites. Possible role in the ubiquitin proteasome system.
<b>Interaction</b>	Robo -1
<b>Ligand/Receptor</b>	CXCL12 (SDF-1)
<b>Cell Type</b>	Macrophages, Mast cells, Mesenchymal Stem Cells, Monocytes, Neural Stem Cells, T cells
<b>Biology Area</b>	Angiogenesis, Cell Biology, Cell Motility/Cytoskeleton/Structure, Immunology, Neuroscience, Neuroscience Cell Markers, Signal Transduction, Stem Cells, Ubiquitin/Protein Degradation
<b>Molecular Family</b>	CD Molecules, Cytokine/Chemokine Receptors, GPCR
<b>Antigen References</b>	<ol style="list-style-type: none"> <li>1. Kucia M, <i>et al.</i> 2005. <i>Stem Cells</i> 23:879.</li> <li>2. Muller A, <i>et al.</i> 2001. <i>Nature</i> 410:50.</li> <li>3. Saini V, <i>et al.</i> 2010. <i>J. Biol. Chem.</i> 285:15566.</li> <li>4. Prasad A, <i>et al.</i> 2007. <i>J. Leuko. Biol.</i> 82:465.</li> <li>5. De Klerck B, <i>et al.</i> 2005. <i>Arthritis Res. Ther.</i> 7:R1208.</li> <li>6. Rueda P, <i>et al.</i> 2008. <i>PLoS One</i> 3:e2543.</li> <li>7. Feng Y, <i>et al.</i> 1996. <i>Science</i> 272:872.</li> </ol>
<b>Gene ID</b>	<a href="#">12767</a>

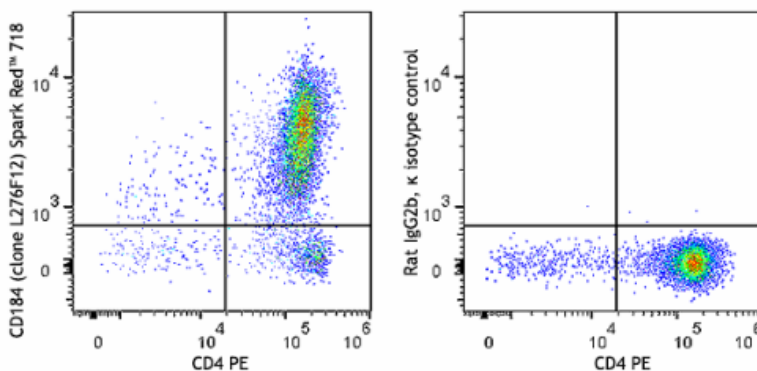
## Related Protocols

- [Cell Surface Flow Cytometry Staining Protocol](#)

## Other Formats

Purified anti-mouse CD184 (CXCR4), Alexa Fluor® 647 anti-mouse CD184 (CXCR4), PE anti-mouse CD184 (CXCR4), APC anti-mouse CD184 (CXCR4), PerCP/Cyanine5.5 anti-mouse CD184 (CXCR4), Brilliant Violet 421™ anti-mouse CD184 (CXCR4), PE/Dazzle™ 594 anti-mouse CD184 (CXCR4), Biotin anti-mouse CD184 (CXCR4), Brilliant Violet 711™ anti-mouse CD184 (CXCR4), Brilliant Violet 605™ anti-mouse CD184 (CXCR4), TotalSeq™-A0444 anti-mouse CD184 (CXCR4), TotalSeq™-B0444 anti-mouse CD184 (CXCR4), APC/Cyanine7 anti-mouse CD184 (CXCR4) Antibody, TotalSeq™-C0444 anti-mouse CD184 (CXCR4), KIRAVIA Blue 520™ anti-mouse CD184 (CXCR4), Brilliant Violet 785™ anti-mouse CD184 (CXCR4), Spark Red™ 718 anti-mouse CD184 (CXCR4) Antibody

## Product Data



C57BL/6 mouse thymocytes were stained with anti-mouse CD4 (clone GK1.5) PE and anti-mouse CD184 (CXCR4) (clone L276F12) Spark Red™ 718 (left) or, rat IgG2b, κ Spark Red™ 718 isotype control (right).

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