

APC anti-mouse CD184 (CXCR4) Antibody

Catalog# / Size	146507 / 25 µg 146508 / 100 µg
Clone	L276F12
Regulatory Status	RUO
Other Names	Fusin, LESTR, Sdf1r, Cmkar4, PB-CKR, PBSF/SDF-1
Isotype	Rat IgG2b, κ
Description	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

Verified Reactivity	Mouse
Antibody Type	Monoclonal
Host Species	Rat
Immunogen	Mouse CXCR4-transfected cells
Formulation	Phosphate-buffered solution, pH 7.2, containing 0.09% sodium azide.
Preparation	The antibody was purified by affinity chromatography and conjugated with APC under optimal conditions.
Concentration	0.2 mg/ml
Storage & Handling	The antibody solution should be stored undiluted between 2°C and 8°C, and protected from prolonged exposure to light. Do not freeze.
Application	FC - Quality tested
Recommended Usage	Each lot of this antibody is quality control tested by immunofluorescent staining with flow cytometric analysis . For flow cytometric staining, the suggested use of this reagent is ≤0.5 µg per million cells in 100 µl volume. It is recommended that the reagent be titrated for optimal performance for each application.
Excitation Laser	Red Laser (633 nm)
Application Notes	Additional reported applications (for the relevant formats) include: <i>in vivo</i> blocking ¹
Application References	1. Costa MJ, <i>et al.</i> 2018. <i>PLoS One</i> . 13:e0194688 (Block) PubMed
(PubMed link indicates BioLegend citation)	
Product Citations	<ol style="list-style-type: none"> Gawish R, <i>et al.</i> 2022. <i>Elife</i>. 11:.. PubMed Brooks JF, <i>et al.</i> 2021. <i>Cell Reports</i>. 36(9):109645. PubMed Yang C, <i>et al.</i> 2021. <i>J Immunother Cancer</i>. 9:.. PubMed Lutes LK, <i>et al.</i> 2021. <i>eLife</i>. 10:00. PubMed Taguchi A, <i>et al.</i> 2017. <i>Cell Stem Cell</i>. 21:730. PubMed Schoeler K, <i>et al.</i> 2019. <i>FEBS J</i>. 10.1111/febs.14934. PubMed Lin C, <i>et al.</i> 2022. <i>Nat Commun</i>. 13:6869. PubMed Kinoshita M, <i>et al.</i> 2020. <i>Cell Stem Cell</i>. . PubMed Lind L, <i>et al.</i> 2021. <i>J Neurovirol</i>. 27:145. PubMed Dudeck J, <i>et al.</i> 2021. <i>Immunity</i>. 54(3):468-483.e5. PubMed Ulaganathan VK, <i>et al.</i> 2020. <i>Sci Rep</i>. 10:8453. PubMed

RRID AB_2562784 (BioLegend Cat. No. 146507)
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Antigen Details

Structure	G-protein-coupled seven transmembrane receptor, 39.7 kD
Distribution	T lymphocytes, monocytes, macrophages, tissue-committed stem/progenitor cells (TCSCs), mast cells, vascular smooth muscle cells (VSMCs)
Function	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 ⁺ CXCR4 ⁺ 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.
Interaction	Robo -1
Ligand/Receptor	CXCL12 (SDF-1)
Cell Type	Macrophages, Mast cells, Mesenchymal Stem Cells, Monocytes, Neural Stem Cells, T cells
Biology Area	Angiogenesis, Cell Biology, Cell Motility/Cytoskeleton/Structure, Immunology, Neuroscience, Neuroscience Cell Markers, Signal Transduction, Stem Cells, Ubiquitin/Protein Degradation
Molecular Family	CD Molecules, Cytokine/Chemokine Receptors, GPCR
Antigen References	<ol style="list-style-type: none"> 1. Kucia M, <i>et al.</i> 2005. <i>Stem Cells</i> 23:879. 2. Muller A, <i>et al.</i> 2001. <i>Nature</i> 410:50. 3. Saini V, <i>et al.</i> 2010. <i>J. Biol. Chem.</i> 285:15566. 4. Prasad A, <i>et al.</i> 2007. <i>J. Leuko. Biol.</i> 82:465. 5. De Klerck B, <i>et al.</i> 2005. <i>Arthritis Res. Ther.</i> 7:R1208. 6. Rueda P, <i>et al.</i> 2008. <i>PLoS One</i> 3:e2543. 7. Feng Y, <i>et al.</i> 1996. <i>Science</i> 272:872.
Gene ID	12767

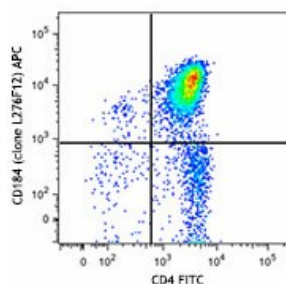
Related Protocols

[Cell Surface Flow Cytometry Staining Protocol](#)

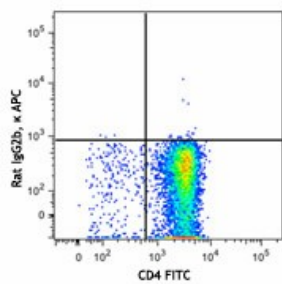
Other Formats

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

Product Data



C57BL/6 mouse thymocytes were stained with CD4 FITC and CD184 (clone L276F12) APC (top) or rat IgG2b, κ APC isotype control (bottom).



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