

## Datasheet: MCA6126

<b>Description:</b>	MOUSE ANTI HUMAN CD184
<b>Specificity:</b>	CD184
<b>Other names:</b>	CXCR4
<b>Format:</b>	Purified
<b>Product Type:</b>	Monoclonal Antibody
<b>Clone:</b>	12G5
<b>Isotype:</b>	IgG2a
<b>Quantity:</b>	0.1 mg

### Product Details

#### Applications

This product has been reported to work in the following applications. This information is derived from testing within our laboratories, peer-reviewed publications or personal communications from the originators. Please refer to references indicated for further information. For general protocol recommendations, please visit [www.bio-rad-antibodies.com/protocols](http://www.bio-rad-antibodies.com/protocols).

	Yes	No	Not Determined	Suggested Dilution
Flow Cytometry	▪			
Immunohistology - Paraffin	▪			
Functional Assays	▪			
Immunocytochemistry	▪			

Where this product has not been tested for use in a particular technique this does not necessarily exclude its use in such procedures. Suggested working dilutions are given as a guide only. It is recommended that the user titrates the product for use in their own system using appropriate negative/positive controls.

<b>Target Species</b>	Human
<b>Species Cross Reactivity</b>	<p>Reacts with: Primate</p> <p><b>N.B.</b> Antibody reactivity and working conditions may vary between species. Cross reactivity is derived from testing within our laboratories, peer-reviewed publications or personal communications from the originators. Please refer to references indicated for further information.</p>
<b>Product Form</b>	Purified IgG - liquid
<b>Preparation</b>	Purified IgG prepared by affinity chromatography on Protein A from tissue culture supernatant
<b>Buffer Solution</b>	Phosphate buffered saline

<b>Preservative Stabilisers</b>	<0.1% Sodium Azide (NaN <sub>3</sub> )
<b>Approx. Protein Concentrations</b>	IgG concentration 1.0 mg/ml
<b>Immunogen</b>	CP-MAC-infected Sup-T1 cells
<b>External Database Links</b>	<p><b>UniProt:</b>  <a href="#">P61073</a>    <a href="#">Related reagents</a></p> <p><b>Entrez Gene:</b>  <a href="#">7852</a>    CXCR4    <a href="#">Related reagents</a></p>
<b>Specificity</b>	<p><b>Mouse anti Human CD184 clone 12G5</b>, recognizes CD184 also known as C-X-C chemokine receptor 4 (CXCR4) and fusion which is a G-protein-coupled chemokine receptor. It has an extracellular N-terminus, a 7-transmembrane structure with 7 helical regions connected by 6 membrane loops and a cytoplasmic C-terminus. It is expressed in a number of hematopoietic cells including hematopoietic stem cells, T cells, B cells, monocytes, macrophages, neutrophils and eosinophils (<a href="#">Teicher &amp; Fricker 2010</a>).</p> <p>CD184's ligand is C-X-C chemokine ligand 12 (CXCL12) which is also known as stromal cell-derived factor 1 (SDF-1). Upon binding of the ligand signaling events are initiated which can result in alterations in gene expression, actin polymerisation, cell skeleton rearrangement and cell migration (<a href="#">Domanska et al. 2013</a>). Via these pathways CD184 plays a role in homing hematopoietic stem and progenitor cells in bone marrow and mobilizes the cells to the periphery during stress or injury (<a href="#">Pawig et al. 2015</a>). As well as homeostatic processes, CD184 has also been linked with various pathologies, including systemic lupus erythematosus, rheumatoid arthritis, multiple sclerosis and tumorigenesis. Its expression in CD4+ T cells has also shown that it acts as a natural co-receptor for HIV type I by assisting with triggering membrane fusion of the virus to the target cell (<a href="#">Feng et al. 1996</a>).</p> <p>Clone 12G5 has been used in flow cytometry experiments to examine CD184 cell surface expression in cells modified to express Δ20 IFNITM2, an IFN-induced transmembrane protein which is known for its ability to inhibit the binding of several human viruses (<a href="#">Wu et al. 2017</a>).</p>
<b>Purity</b>	>95% by SDS PAGE
<b>Further Reading</b>	<ol style="list-style-type: none"> <li>Hamm, H.E. (1998) The many faces of G protein signaling. <a href="#">J Biol Chem. 273 (2): 669-72.</a></li> <li>Teicher, B.A. &amp; Fricker, S.P. (2010) CXCL12 (SDF-1)/CXCR4 pathway in cancer. <a href="#">Clin Cancer Res. 16 (11): 2927-31.</a></li> <li>Domanska, U.M. <i>et al.</i> (2013) A review on CXCR4/CXCL12 axis in oncology: no place to hide. <a href="#">Eur J Cancer. 49 (1): 219-30.</a></li> <li>Pawig, L. <i>et al.</i> (2015) Diversity and Inter-Connections in the CXCR4 Chemokine</li> </ol>

Receptor/Ligand Family: Molecular Perspectives. [Front Immunol. 6: 429.](#)  
5. WalenkampA, M.E. *et al.* (2017) CXCR4 Ligands: The Next Big Hit? [J Nucl Med. 58 \(Suppl 2\): 77S-82S.](#)

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<b>Storage</b>	Store at +4°C. DO NOT FREEZE. This product should be stored undiluted.
<b>Guarantee</b>	Guaranteed for 12 months from the date of despatch or until the date of expiry, whichever comes first. Please see label for expiry date.
<b>Health And Safety Information</b>	Material Safety Datasheet documentation #10040 available at: <a href="https://www.bio-rad-antibodies.com/SDS/MCA6126">https://www.bio-rad-antibodies.com/SDS/MCA6126</a> 10040
<b>Regulatory</b>	For research purposes only

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## Related Products

### Recommended Secondary Antibodies

Rabbit Anti Mouse IgG (STAR12...)	<a href="#">RPE</a>
Goat Anti Mouse IgG IgA IgM (STAR87...)	<a href="#">HRP</a>
Goat Anti Mouse IgG (STAR76...)	<a href="#">RPE</a>
Goat Anti Mouse IgG (STAR70...)	<a href="#">FITC</a>
Rabbit Anti Mouse IgG (STAR13...)	<a href="#">HRP</a>
Goat Anti Mouse IgG (Fc) (STAR120...)	<a href="#">FITC</a> , <a href="#">HRP</a>
Rabbit Anti Mouse IgG (STAR9...)	<a href="#">FITC</a>
Goat Anti Mouse IgG (STAR77...)	<a href="#">HRP</a>
Goat Anti Mouse IgG (H/L) (STAR117...)	<a href="#">Alk. Phos.</a> , <a href="#">DyLight®488</a> , <a href="#">DyLight®550</a> , <a href="#">DyLight®650</a> , <a href="#">DyLight®680</a> , <a href="#">DyLight®800</a> , <a href="#">FITC</a> , <a href="#">HRP</a>

### Recommended Negative Controls

[MOUSE IgG2a NEGATIVE CONTROL \(MCA929\)](#)

<b>North &amp; South America</b>	Tel: +1 800 265 7376 Fax: +1 919 878 3751 Email: <a href="mailto:antibody_sales_us@bio-rad.com">antibody_sales_us@bio-rad.com</a>	<b>Worldwide</b>	Tel: +44 (0)1865 852 700 Fax: +44 (0)1865 852 739 Email: <a href="mailto:antibody_sales_uk@bio-rad.com">antibody_sales_uk@bio-rad.com</a>	<b>Europe</b>	Tel: +49 (0) 89 8090 95 21 Fax: +49 (0) 89 8090 95 50 Email: <a href="mailto:antibody_sales_de@bio-rad.com">antibody_sales_de@bio-rad.com</a>
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To find a batch/lot specific datasheet for this product, please use our online search tool at: [bio-rad-antibodies.com/datasheets](https://bio-rad-antibodies.com/datasheets)  
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