

## Datasheet: MCA1584

<b>Description:</b>	MOUSE ANTI HUMAN CD158b
<b>Specificity:</b>	CD158b
<b>Other names:</b>	KIR2DL3
<b>Format:</b>	Purified
<b>Product Type:</b>	Monoclonal Antibody
<b>Clone:</b>	GL183
<b>Isotype:</b>	IgG1
<b>Quantity:</b>	0.2 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	▪			1/10 - 1/50
Immunohistology - Frozen			▪	
Immunohistology - Paraffin			▪	
ELISA			▪	
Immunoprecipitation	▪			
Western Blotting			▪	

Where this antibody has not been tested for use in a particular technique this does not necessarily exclude its use in such procedures. It is recommended that the user titrates the antibody for use in their own system using appropriate negative/positive controls.

<b>Target Species</b>	Human
<b>Product Form</b>	Purified IgG - liquid
<b>Buffer Solution</b>	Phosphate buffered saline
<b>Preservative</b>	0.09% Sodium Azide (NaN <sub>3</sub> )
<b>Stabilisers</b>	0.5% Bovine Serum Albumin
<b>Approx. Protein Concentrations</b>	IgG concentration 1.0 mg/ml
<b>Immunogen</b>	NK cell clone E57 ( <a href="#">Moretta et al. 1985</a> ).
<b>External Database Links</b>	<p><b>UniProt:</b></p> <p><a href="#">P43628</a>   <a href="#">Related reagents</a></p> <p><b>Entrez Gene:</b></p>

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<b>Synonyms</b>	CD158B2, KIRCL23, NKAT2
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<b>Fusion Partners</b>	Spleen cells from immunized Balb/c mice were fused with cells of the mouse P3UI myeloma cell line.
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<b>Specificity</b>	<p><b>Mouse anti Human CD158b antibody, clone GL183</b> recognizes human Killer cell immunoglobulin-like receptor 2DL3, also known as CD158b, KIR-023GB, MHC class I NK cell receptor, p58 natural killer cell receptor clone CL-6 or Natural killer-associated transcript 2. CD158b is a 341 amino acid, ~58 kDa single pass type-1 transmembrane glycoprotein containing two <a href="#">Ig-like C2-type</a> domains. expressed by a subset of NK cells.</p> <p>This antibody also recognizes a ~50 kDa molecule in some NK clones, which is highly homologous to p58.2 in the extracellular domain, but has a shorter cytoplasmic tail (<a href="#">Moretta <i>et al.</i> 1985</a>). Both molecules are members of the newly described natural killer cell receptor family.</p> <p>CD158b functions as a receptor specific for HLA Class I molecules, including <a href="#">Cw3</a> and related HLA-C alleles. Mouse anti Human CD158b antibody, clone GL183 can restore the lysis by human NK clones of otherwise lysis protected targets expressing Cw3.</p>
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<b>Flow Cytometry</b>	Use 10ul of the suggested working dilution to label 10 <sup>6</sup> cells in 100ul.
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<b>References</b>	<ol style="list-style-type: none"><li>1. Moretta, A. <i>et al.</i> (1990) A novel surface antigen expressed by a subset of human CD3- CD16+ natural killer cells. Role in cell activation and regulation of cytolytic function. <a href="#">J Exp Med. 171 (3): 695-714.</a></li><li>2. Moretta, A. <i>et al.</i> (1993) P58 molecules as putative receptors for major histocompatibility complex (MHC) class I molecules in human natural killer (NK) cells. Anti-p58 antibodies reconstitute lysis of MHC class I-protected cells in NK clones displaying different specificities. <a href="#">J Exp Med. 178 (2): 597-604.</a></li><li>3. Moretta, A. <i>et al.</i> (1995) Existence of both inhibitory (p58) and activatory (p50) receptors for HLA-C molecules in human natural killer cells. <a href="#">J Exp Med. 182 (3): 875-84.</a></li><li>4. Pridgeon, C. <i>et al.</i> (2003) Natural killer cells in the synovial fluid of rheumatoid arthritis patients exhibit a CD56bright,CD94bright,CD158negative phenotype. <a href="#">Rheumatology (Oxford). 42 (7): 870-8.</a></li><li>5. Marget, M. <i>et al.</i> (2005) A HLA-Cw6 specific single-chain antibody fragment (scFv) recognizing a natural killer cell receptor epitope <a href="#">Mol Immunol. 42: 643-9.</a></li><li>6. Poggi, A. <i>et al.</i> (2005) Regulation of gammadelta T cell survival by soluble HLA-I: involvement of CD8 and activating killer Ig-like receptors. <a href="#">Eur J Immunol. 35: 2670-8.</a></li><li>7. Borhis, G. <i>et al.</i> (2013) A peptide antagonist disrupts NK cell inhibitory synapse formation. <a href="#">J Immunol. 190 (6): 2924-30.</a></li><li>8. Poggi, A. <i>et al.</i> (2005) Patients with paroxysmal nocturnal hemoglobinuria have a high frequency of peripheral-blood T cells expressing activating isoforms of inhibiting superfamily receptors. <a href="#">Blood. 106: 2399-408.</a></li><li>9. Valés-Gómez, M. <i>et al.</i> (2003) Expression of the UL16 glycoprotein of Human Cytomegalovirus protects the virus-infected cell from attack by natural killer cells. <a href="#">BMC Immunol. 4:4.</a></li><li>10. Spaggiari, G.M. <i>et al.</i> (2002) Soluble HLA class I molecules induce natural killer cell apoptosis through the engagement of CD8: evidence for a negative regulation exerted by members of the inhibitory receptor superfamily. <a href="#">Blood. 99: 1706-14.</a></li><li>11. Warren, H.S. <i>et al.</i> (2001) Biphasic response of NK cells expressing both activating and inhibitory killer Ig-like receptors. <a href="#">Int Immunol. 13: 1043-52.</a></li><li>12. Ghio, M. <i>et al.</i> (2009) Soluble HLA-I-mediated secretion of TGF-beta1 by human NK cells and consequent down-regulation of anti-tumor cytolytic activity. <a href="#">Eur J Immunol. 39: 3459-68.</a></li></ol>
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13. Spaggiari, G.M. *et al.* (2003) IFN-gamma production in human NK cells through the engagement of CD8 by soluble or surface HLA class I molecules. [Eur J Immunol. 33: 3049-59.](#)
14. Bachelet, I. *et al.* (2005) The inhibitory receptor IRp60 (CD300a) is expressed and functional on human mast cells. [J Immunol. 175: 7989-95.](#)
15. Zimmer, J. *et al.* (1998) Activity and phenotype of natural killer cells in peptide transporter (TAP)-deficient patients (type I bare lymphocyte syndrome). [J Exp Med. 187: 117-22.](#)
16. Castriconi, R., *et al.* (2009) NK cells recognize and kill human glioblastoma cells with stem cell-like properties. [J Immunol. 182: 3530-9.](#)
17. Ghio, M. *et al.* (2009) Soluble HLA-I-mediated secretion of TGF-beta1 by human NK cells and consequent down-regulation of anti-tumor cytolytic activity. [Eur J Immunol. 39 \(12\): 3459-68.](#)
18. Naiyer, M.M. *et al.* (2017) KIR2DS2 recognizes conserved peptides derived from viral helicases in the context of HLA-C. [Sci Immunol. 2 \(15\) \[Epub ahead of print\].](#)

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**Storage**

Store at +4°C or at -20°C if preferred.

This product should be stored undiluted.

Storage in frost free freezers is not recommended. Avoid repeated freezing and thawing as this may denature the antibody. Should this product contain a precipitate we recommend microcentrifugation before use.

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**Shelf Life**

18 months from date of despatch.

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**Health And Safety Information**

Material Safety Datasheet documentation #10041 available at: 10041: <https://www.bio-rad-antibodies.com/uploads/MSDS/10041.pdf>

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**Regulatory**

For research purposes only

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## Related Products

### Recommended Secondary Antibodies

- Goat Anti Mouse IgG (STAR76...) [RPE](#)
- Goat Anti Mouse IgG IgA IgM (STAR87...) [Alk. Phos.](#), [HRP](#)
- Goat Anti Mouse IgG (H/L) (STAR117...) [Alk. Phos.](#), [DyLight@488](#), [DyLight@549](#), [DyLight@649](#), [DyLight@680](#), [DyLight@800](#), [FITC](#), [HRP](#)
- Rabbit Anti Mouse IgG (STAR9...) [FITC](#)
- Goat Anti Mouse IgG (STAR77...) [HRP](#)
- Rabbit Anti Mouse IgG (STAR12...) [RPE](#)
- Goat Anti Mouse IgG (Fc) (STAR120...) [FITC](#), [HRP](#)
- Rabbit Anti Mouse IgG (STAR8...) [DyLight@800](#)
- Goat Anti Mouse IgG (STAR70...) [FITC](#)
- Rabbit Anti Mouse IgG (STAR13...) [HRP](#)
- Human Anti Mouse IgG1 (HCA036...) [HRP](#)

### Recommended Negative Controls

[MOUSE IgG1 NEGATIVE CONTROL \(MCA928\)](#)

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