

Datasheet: MCA1584

Description:	MOUSE ANTI HUMAN CD158b
Specificity:	CD158b
Other names:	KIR2DL3
Format:	Purified
Product Type:	Monoclonal Antibody
Clone:	GL183
Isotype:	IgG1
Quantity:	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.

	Yes	No	Not Determined	Suggested Dilution
Flow Cytometry	▪			1/10 - 1/50
Immunohistology - Frozen			▪	
Immunohistology - Paraffin			▪	
ELISA			▪	
Immunoprecipitation	▪			
Western Blotting			▪	

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.

Target Species	Human
Product Form	Purified IgG - liquid
Buffer Solution	Phosphate buffered saline
Preservative Stabilisers	0.09% sodium azide (NaN ₃)
Approx. Protein Concentrations	IgG concentration 1.0 mg/ml
Immunogen	NK cell clone E57 (Moretta et al. 1985).

External Database Links	<p>UniProt: P43628 Related reagents</p> <p>Entrez Gene: 3804 KIR2DL3 Related reagents</p> <hr/> <p>Synonyms CD158B2, KIRCL23, NKAT2</p> <hr/> <p>RRID AB_2265256</p> <hr/> <p>Fusion Partners Spleen cells from immunized Balb/c mice were fused with cells of the mouse P3UI myeloma cell line.</p> <hr/> <p>Specificity Mouse anti Human CD158b antibody, clone GL183 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 Ig-like C2-type 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 (Moretta et al. 1985). 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 Cw3 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> <hr/> <p>Flow Cytometry Use 10µl of the suggested working dilution to label 10⁶ cells in 100µl</p> <hr/> <p>References 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. J Exp Med. 171 (3): 695-714.</p> <p>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. J Exp Med. 178 (2): 597-604.</p> <p>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. J Exp Med. 182 (3): 875-84.</p> <p>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. Rheumatology (Oxford). 42 (7): 870-8.</p> <p>5. Marget, M. <i>et al.</i> (2005) A HLA-Cw6 specific single-chain antibody fragment (scFv) recognizing a natural killer cell receptor epitope Mol Immunol. 42: 643-9.</p> <p>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. Eur J Immunol. 35: 2670-8.</p> <p>7. Borhis, G. <i>et al.</i> (2013) A peptide antagonist disrupts NK cell inhibitory synapse</p>
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- formation. [J Immunol. 190 \(6\): 2924-30.](#)
8. Poggi, A. *et al.* (2005) Patients with paroxysmal nocturnal hemoglobinuria have a high frequency of peripheral-blood T cells expressing activating isoforms of inhibiting superfamily receptors. [Blood. 106: 2399-408.](#)
9. Valés-Gómez, M. *et al.* (2003) Expression of the UL16 glycoprotein of Human Cytomegalovirus protects the virus-infected cell from attack by natural killer cells. [BMC Immunol. 4:4.](#)
10. Spaggiari, G.M. *et al.* (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. [Blood. 99: 1706-14.](#)
11. Warren, H.S. *et al.* (2001) Biphasic response of NK cells expressing both activating and inhibitory killer Ig-like receptors. [Int Immunol. 13: 1043-52.](#)
12. 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: 3459-68.](#)
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 \(6\): 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 \(15\) \[Epub ahead of print\].](#)

Storage This product is shipped at ambient temperature. It is recommended to aliquot and store at -20°C on receipt. When thawed, aliquot the sample as needed. Keep aliquots at 2-8°C for short term use (up to 4 weeks) and store the remaining aliquots at -20°C.

Avoid repeated freezing and thawing as this may denature the antibody. Storage in frost-free freezers is not recommended.

Guarantee 12 months from date of despatch

Health And Safety Information Material Safety Datasheet documentation #10040 available at: 10040: <https://www.bio-rad-antibodies.com/uploads/MSDS/10040.pdf>

Regulatory For research purposes only

Related Products

Recommended Secondary Antibodies

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

Recommended Negative Controls

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

North & South America	Tel: +1 800 265 7376 Fax: +1 919 878 3751 Email: antibody_sales_us@bio-rad.com	Worldwide	Tel: +44 (0)1865 852 700 Fax: +44 (0)1865 852 739 Email: antibody_sales_uk@bio-rad.com	Europe	Tel: +49 (0) 89 8090 95 21 Fax: +49 (0) 89 8090 95 50 Email: antibody_sales_de@bio-rad.com
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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

'M410738:221028'

Printed on 28 Oct 2022

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