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

RRID AB_2265256

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 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.

Target Species Human

Product Form Purified IgG - liquid

Buffer Solution Phosphate buffered saline

Preservative Stabilisers 0.09% Sodium Azide (NaN_3)
0.5% Bovine Serum Albumin

Approx. Protein Concentrations IgG concentration 1.0 mg/ml

Immunogen NK cell clone E57 (Moretta *et al.* 1985).

External Database Links

UniProt:
P43628 Related reagents

Entrez Gene:

3804 KIR2DL3 Related reagents

Synonyms	CD158B2, KIRCL23, NKAT2
Fusion Partners	Spleen cells from immunized Balb/c mice were fused with cells of the mouse P3UI myeloma cell line.
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. 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. 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.
Flow Cytometry	Use 10ul of the suggested working dilution to label 10^6 cells in 100ul.
References	1. Moretta, A. *et al.* (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. 2. Moretta, A. *et al.* (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. 3. Moretta, A. *et al.* (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. 4. Pridgeon, C. *et al.* (2003) Natural killer cells in the synovial fluid of rheumatoid arthritis patients exhibit a CD56bright,CD94bright,CD158negative phenotype. Rheumatology (Oxford). 42 (7): 870-8. 5. Marget, M. *et al.* (2005) A HLA-Cw6 specific single-chain antibody fragment (scFv) recognizing a natural killer cell receptor epitope Mol Immunol. 42: 643-9. 6. Poggi, A. *et al.* (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. 7. Borhis, G. *et al.* (2013) A peptide antagonist disrupts NK cell inhibitory synapse 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: 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	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.
Guarantee	18 months from date of despatch.
Health And Safety Information	Material Safety Datasheet documentation #10041 available at: 10041: https://www.bio-rad-antibodies.com/uploads/MSDS/10041.pdf
Regulatory	For research purposes only

Related Products

Recommended Secondary Antibodies

Goat Anti Mouse IgG IgA IgM (STAR87...)	Alk. Phos., HRP
Goat Anti Mouse IgG (STAR77...)	HRP
Rabbit Anti Mouse IgG (STAR12...)	RPE
Rabbit Anti Mouse IgG (STAR8...)	DyLight®800
Rabbit Anti Mouse IgG (STAR13...)	HRP
Goat Anti Mouse IgG (STAR76...)	RPE
Goat Anti Mouse IgG (STAR70...)	FITC
Goat Anti Mouse IgG (Fc) (STAR120...)	FITC, HRP
Rabbit Anti Mouse IgG (STAR9...)	FITC
Goat Anti Mouse IgG (H/L) (STAR117...)	Alk. Phos., DyLight®488, DyLight®680, DyLight®800, 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

'M341164:190109'