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Schillerstr. 5

SM1229P Monoclonal Antibody to CD158b / KIR2DL3 - Purified

Alternate names: KIRCL23, Killer cell immunoglobulin-like receptor 2DL3, MHC class I NK cell receptor,

NKAT2a, NKAT2b, Natural killer-associated transcript 2

Quantity: 0.2 mg
Concentration: 1.0 mg/ml

Background: CD158b is a 58kD glycoprotein expressed by a subset of NK cells (also known as p58.2

antigen). The antigen is a 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. This antibody can restore the lysis by human NK clones

of otherwise lysis protected targets expressing Cw3.

Uniprot ID: P43628

NCBI: NP 056952.2

GenelD: <u>3804</u>

Host / Isotype: Mouse / IgG1

Recommended Isotype

Controls:

SM10P (for use in human samples), AM03095PU-N

Clone: GL183

Immunogen: NK cell clone E57. Spleen cells from immunised BALB/c mice were fused with cells of

the mouse P3UI myeloma cell line.

Format: State: Liquid purified IgG

Buffer System: PBS containing 0.09% Sodium Azide and 0.1% Bovine Serum Albumin

Applications: Flow cytometry: 1/10 - 1/50; Use 10µl of the suggested working dilution to label 10e6

cells in 100µl.

Immunoprecipitation.

Other applications not tested. Optimal dilutions are dependent on conditions and

should be determined by the user.

Specificity: This antibody recognises the CD158b cell surface antigen. This antibody also

recognises a 50kD molecule, which is highly homologous to p58.2 in the extracellular

domain, but has a shorter cytoplasmic tail.

Species: Human.

Other species not tested.

Store the antibody undiluted at 2-8°C for one month or (in aliquots) at -20°C for

longer.

Avoid repeated freezing and thawing. Shelf life: one year from despatch.

General Readings: 1. Moretta A, Tambussi G, Bottino C, Tripodi G, Merli A, Ciccone E, et al. 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. 1990 Mar

1;171(3):695-714. PubMed PMID: 2137855.



- 2. Moretta A, Vitale M, Bottino C, Orengo AM, Morelli L, Augugliaro R, et al. 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. 1993 Aug 1;178(2):597-604. PubMed PMID: 8340759.
- 3. Ciccone E, Pende D, Viale O, Di Donato C, Tripodi G, Orengo AM, et al. Evidence of a natural killer (NK) cell repertoire for (allo) antigen recognition: definition of five distinct NK-determined allospecificities in humans. J Exp Med. 1992 Mar 1;175(3):709-18. PubMed PMID: 1371301.
- 4. Moretta A, Biassoni R, Bottino C, Pende D, Vitale M, Poggi A, et al. Major histocompatibility complex class I-specific receptors on human natural killer and T lymphocytes. Immunol Rev. 1997 Feb;155:105-17. PubMed PMID: 9059886.
- 5. Moretta A, Sivori S, Vitale M, Pende D, Morelli L, Augugliaro R, et al. Existence of both inhibitory (p58) and activatory (p50) receptors for HLA-C molecules in human natural killer cells. J Exp Med. 1995 Sep 1;182(3):875-84. PubMed PMID: 7650491.
- 6. Biassoni R, Cantoni C, Falco M, Verdiani S, Bottino C, Vitale M, et al. The human leukocyte antigen (HLA)-C-specific "activatory" or "inhibitory" natural killer cell receptors display highly homologous extracellular domains but differ in their transmembrane and intracytoplasmic portions. J Exp Med. 1996 Feb 1;183(2):645-50. PubMed PMID: 8627176.
- 7. Long EO, Colonna M, Lanier LL. Inhibitory MHC class I receptors on NK and T cells: a standard nomenclature. Immunol Today. 1996 Feb;17(2):100. PubMed PMID: 8808061.