**Product Information**

**Material Number:** 555967

**Alternate Name:** KIR3DL1; CD158E; KIR antigen 3DL1; KIR; KI3L1; NKAT-3; NKB1; NKB1B

**Size:** 100 Tests

**Vol. per Test:** 20 µl

**Clone:** DX9

**Immunogen:** Human NK Cell Clone

**Isotype:** Mouse (BALB/c) IgG1, κ

**Reactivity:** QC Testing: Human

**Workshop:** VII 70319

**Storage Buffer:** Aqueous buffered solution containing BSA and ≤0.09% sodium azide.

**Description**

The DX9 monoclonal antibody specifically binds to CD158e1, also known as NKB1. CD158e1 functions as a killer cell inhibitory receptor (KIR) and is encoded by KIR3DL1 (Killer cell immunoglobulin-like receptor, three domains, long cytoplasmic tail). CD158e1 is a 70 kDa glycoprotein that belongs to the Ig superfamily. It is expressed on a subset of natural killer cells and a small subset of T cells. Expression of CD158e1 has been observed to vary among individuals. KIR molecules specifically recognize a certain group of HLA class I antigens. Interaction of CD158e1 with specific HLA-B antigen on a target cell appears to inhibit cell-mediated cytotoxicity by delivering a negative signal that prevents lymphocyte activation. It is suggested that this MHC class I-KIR interaction works as a signaling mechanism that regulates NK and T-cell responses to antigenic challenge.

**Flow cytometric analysis of NKB1 expression on human peripheral blood lymphocytes.** Whole blood was stained with PE Mouse Anti-Human NKB1 (Cat. No. 555967; solid line histogram) and PE Mouse IgG1, κ Isotype Control (Cat. No. 555749, dashed line histogram). Erythrocytes were lysed with Lysing Buffer (Cat. No. 555899). The fluorescence histogram was derived from gated events with the forward and side light-scattering characteristics of viable lymphocytes.

**Preparation and Storage**

Store undiluted at 4°C and protected from prolonged exposure to light. Do not freeze.

The monoclonal antibody was purified from tissue culture supernatant or ascites by affinity chromatography.

The antibody was conjugated with R-PE under optimum conditions, and unconjugated antibody and free PE were removed.

**Application Notes**

**Application**

Flow cytometry Routinely Tested

**Suggested Companion Products**

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<th>Catalog Number</th>
<th>Name</th>
<th>Size</th>
<th>Clone</th>
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<td>555749</td>
<td>PE Mouse IgG1, κ Isotype Control</td>
<td>100 Tests</td>
<td>MOPC-21</td>
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<td>Lysing Buffer</td>
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<td>349202</td>
<td>BD FACSTM Lysing Solution</td>
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**Product Notices**

1. This reagent has been pre-diluted for use at the recommended Volume per Test. We typically use $1 \times 10^6$ cells in a 100-µl experimental sample (a test).
2. An isotype control should be used at the same concentration as the antibody of interest.
3. Source of all serum proteins is from USDA inspected abattoirs located in the United States.
4. Caution: Sodium azide yields highly toxic hydrazoic acid under acidic conditions. Dilute azide compounds in running water before discarding to avoid accumulation of potentially explosive deposits in plumbing.
5. For fluorochrome spectra and suitable instrument settings, please refer to our Multicolor Flow Cytometry web page at www.bdbiosciences.com/colors.

**References**


Fry AM, Lanier LL, Weiss A. Phosphotyrosines in the killer cell inhibitory receptor motif of NKB1 are required for negative signaling and for association with protein tyrosine phosphatase 1C. *J Exp Med.* 1996; 184(1):295-300. (Biology)


