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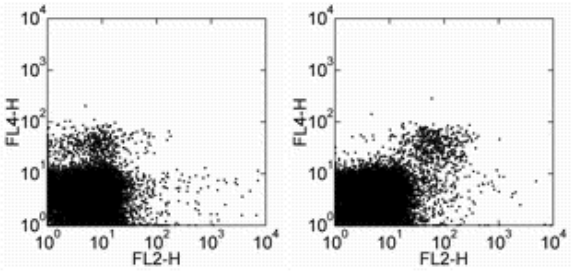
Anti-Mouse CD314 (NKG2D) PE

Catalog Number: 12-5873
Also Known As:KLRK1
RUO: For Research Use Only



Staining of BALB/c splenocytes with Anti-Mouse CD49b (Integrin alpha 2) APC (cat. 17-5971) and 0.5 ug of Hamster IgG Isotype Control PE (cat. 12-4888) (left) or 0.5 ug of Anti-Mouse CD314 (NKG2D) (right). Total viable cells were used for analysis.

Product Information

Contents: Anti-Mouse CD314 (NKG2D) PE
REF **Catalog Number:** 12-5873
Clone: C7
Concentration: 0.2 mg/mL
Host/Isotype: Armenian Hamster IgG

Formulation: aqueous buffer, 0.09% sodium azide, may contain carrier protein/stabilizer
Temperature Limitation: Store at 2-8°C. Do not freeze. Light sensitive material.
LOT **Batch Code:** Refer to Vial
Use By: Refer to Vial
Caution, contains Azide

Description

The C7 monoclonal antibody reacts with the mouse NKG2D. NKG2D is a lectin-like molecule expressed on both human and mouse NK cell lineage. Mouse NKG2D binds to retinoic acid-inducible RAE1-α, -β, -γ, -δ, and -ε and the minor histocompatibility molecule H60 and has the ability to costimulate multiple NK activation receptors through the DAP12/DAP10 adaptor molecules. NKG2D is expressed by all spleen and liver NK cells, NK1.1$^+$ thymocytes, *in vitro* activated LAK cells and a subset of splenic NKT cells. A10 and C7 antibodies detect NK cells from all inbred strains of mouse tested so far. C7 is reported to interfere with the interaction of NKG2D with its ligands as shown by inhibition of lysis of Ba/F3-RAE1d by C57BL/6 LAK cells in the presence of the C7 mAb. C7 and another hamster anti-mouse NKG2D (clone A10, cat.14-5872) compete with each other for binding to transfected cells by flow cytometric analysis, suggesting that they may bind to similar epitopes or block each other by steric hindrance. C7 (neutralizing) and A10 (activating) also exhibit different functional properties.

Expression of the NKG2D antigen on mouse peripheral NK and NKT cells can be detected by flow cytometric analysis using mAb CX5 with much brighter intensity.

Applications Reported

C7 has been reported for use in flow cytometric analysis.

Applications Tested

The C7 antibody has been tested by flow cytometric analysis of mouse splenocyte suspensions. This can be used at less than or equal to 1 µg per test. A test is defined as the amount (µg) of antibody that will stain a cell sample in a final volume of 100 µL. Cell number should be determined empirically but can range from 10^5 to 10^8 cells/test. It is recommended that the antibody be carefully titrated for optimal performance in the assay of interest.

References

Ho EL, Carayannopoulos LN, Poursine-Laurent J, Kinder J, Plougastel B, Smith HR, Yokoyama WM. 2002. Costimulation of multiple NK cell activation receptors by NKG2D. J Immunol. 169(7):3667-75.

Related Products

12-4888 Armenian Hamster IgG Isotype Control PE (eBio299Arm)
17-5971 Anti-Mouse CD49b (Integrin alpha 2) APC (DX5)