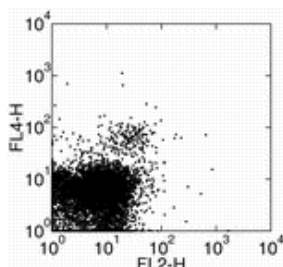


Anti-Mouse CD314 (NKG2D) Purified

Catalog Number: 14-5872

Also Known As: KLRK1

RUO: For Research Use Only



Surface staining of mouse splenocytes with Anti-Mouse CD314 (NKG2D) PE and Anti-Mouse CD49b (Integrin alpha 2) APC. Total viable cells were used for analysis.

Product Information

Contents: Anti-Mouse CD314 (NKG2D) Purified

REF **Catalog Number:** 14-5872

Clone: A10

Concentration: 0.5 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.



Batch Code: Refer to Vial



Use By: Refer to Vial



Caution, contains Azide

Description

The A10 monoclonal antibody reacts with the mouse NKG2D, a lectin-like molecule expressed on both human and mouse NK cells. Mouse NKG2D binds to retinoic acid-inducible RAE-1 alpha, beta, gamma, delta, epsilon 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 mice tested so far. In redirected lysis assays, A10 is reported to stimulate NK cells to kill Daudi targets. In addition, immobilized A10 is reported to induce production of GM-CSF by NK clones and LAK cells through a CD16 (FC gamma RIII) concomitant engagement. A10 and another hamster anti-mouse NKG2D (clone C7) 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

The A10 antibody has been reported for use in flow cytometric analysis. It has also been reported in activation in functional studies. (Please use Functional Grade purified A10, cat. 16-5872, in functional assays.)

Applications Tested

The A10 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 10⁵ to 10⁸ 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

11-4111 Anti-Armenian Hamster IgG FITC

12-4317 Streptavidin PE

12-5882 Anti-Mouse CD314 (NKG2D) PE (CX5)

13-4113 Anti-Armenian Hamster IgG Biotin (Polyclonal)

14-4888 Armenian Hamster IgG Isotype Control Purified (eBio299Arm)

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Tel: 888.999.1371 or 858.642.2058 • Fax: 858.642.2046 • www.eBioscience.com • info@eBioscience.com