full spectrum cell analysis®
eBioscience®

Anti-Mouse CD314 (NKG2D) Functional Grade Purified

Catalog Number: 16-5882
Also Known As:KLRK1
RUO: For Research Use Only

Product Information

Contents: Anti-Mouse CD314 (NKG2D) Functional Grade Purified
REF **Catalog Number:** 16-5882
Clone: CX5
Concentration: 1 mg/mL
Host/Isotype: Rat IgG1, kappa
Handling Conditions: Use in sterile environment.
Endotoxin Level: Less than 0.001 ng/ug antibody, as determined by the LAL assay.
Formulation: aqueous buffer, no sodium azide
Temperature Limitation: Store at 2-8°C.
LOT **Batch Code:** Refer to Vial
Use By: Refer to Vial

Description

The CX5 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-1α, -β, -γ, -δ, -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.

Applications Reported

The CX5 antibody has been reported for use in flow cytometric analysis. It has also been reported in blocking of binding of NKG2D to its ligands, RAE-1 and H60, and inhibition NKG2D-dependent NK cell-mediated cytotoxicity against NKG2D ligand-bearing tumors *in vitro* and *in vivo*.

Applications Tested

The CX5 antibody has been tested by flow cytometric analysis of mouse splenocyte suspensions. This can be used at less than or equal to 0.5 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 when using this antibody for staining the secondary must be Biotin anti-rat (cat 13-4813). Other secondaries may give suboptimal staining. It is recommended that the antibody be carefully titrated for optimal performance in the assay of interest.

References

Lodoen M, Ogasawara K, Hamerman JA, Arase H, Houchins JP, Mocarski ES, Lanier LL. 2003. NKG2D-mediated natural killer cell protection against cytomegalovirus is impaired by viral gp40 modulation of retinoic acid early inducible 1 gene molecules. J Exp Med. 197(10):1245-53.

Cerwenka A, Baron JL, Lanier LL. 2001. Ectopic expression of retinoic acid early inducible-1 gene (RAE-1) permits natural killer cell-mediated rejection of a MHC class I-bearing tumor in vivo. Proc Natl Acad Sci U S A. 98(20):11521-6.

Cerwenka A, Bakker AB, McClanahan T, Wagner J, Wu J, Phillips JH, Lanier LL. 2000. Retinoic acid early inducible genes define a ligand family for the activating NKG2D receptor in mice. Immunity. 12(6):721-7.

Related Products

11-4811 Anti-Rat IgG FITC
16-4301 Rat IgG1 K Isotype Control Functional Grade Purified

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