

Anti-Mouse CD314 (NKG2D) Functional Grade Purified

Catalog Number: 16-5880

Also Known As: KLRK1

RUO: For Research Use Only. Not for use in diagnostic procedures.

Product Information

Contents: Anti-Mouse CD314 (NKG2D) Functional Grade Purified

Formulation: aqueous buffer, no sodium azide

REF **Catalog Number:** 16-5880

Clone: MI-6 (MI6)

Concentration: 1 mg/mL

Host/Isotype: Rat IgG2a, lambda

Handling Conditions: Use in sterile environment.

Endotoxin Level: Less than 0.001 ng/ug antibody, as determined by the LAL assay.



Temperature Limitation: Store at 2-8°C.



Batch Code: Refer to Vial



Use By: Refer to Vial

Description

The MI-6 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.

Applications Reported

This MI-6 (MI6) antibody has been reported for use in flow cytometric analysis. Furthermore, engagement of NKG2D with the MI-6 monoclonal antibody has been demonstrated to block NKG2D-mediated cytotoxicity, both *in vitro* and *in vivo*.

Applications Tested

This MI-6 (MI6) antibody has been tested by flow cytometric analysis of mouse splenocytes. 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 10⁵ to 10⁸ cells/test. It is recommended that the antibody be carefully titrated for optimal performance in the assay of interest.

References

Jamieson AM, Diefenbach A, McMahon CW, Xiong N, Carlyle JR, Raulet DH. The role of the NKG2D immunoreceptor in immune cell activation and natural killing. *Immunity*. 2002 Jul;17(1):19-29. Erratum in: *Immunity*. 2004 Jun;20(6):799. (MI-6, FC, FA, PubMed)

Diefenbach A, Hsia J, Hsiung M, Raulet D. 2003. A novel ligand for the NKG2D receptor activates NK cells and macrophages and induces tumor immunity. *Eur. J. Immunol.* 33(2):381 - 391.

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

16-4321 Rat IgG2a K Isotype Control Functional Grade Purified (eBR2a)

16-5873 Anti-Mouse CD314 (NKG2D) Functional Grade Purified (C7)

16-5882 Anti-Mouse CD314 (NKG2D) Functional Grade Purified (CX5)

