full spectrum cell analysis®
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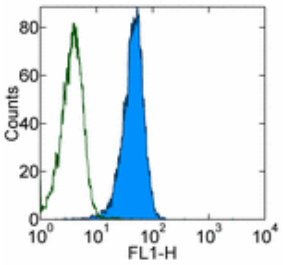
Anti-Mouse RAE1 gamma Purified

Catalog Number: 14-5881
Also Known As:RAE1gamma, RAE1-g, RAE-1-g
RUO: For Research Use Only



Staining of Yac-1 cell line with 0.125 µg of Rat IgG2b κ Isotype Control Purified (cat. 14-4031) (open histogram) or 0.125 µg of Anti-Mouse RAE1γ Purified (filled histogram) followed by Anti-Rat IgG FITC (cat. 11-4811). Total viable cells were used for analysis.

Product Information

Contents: Anti-Mouse RAE1 gamma Purified
REF Catalog Number: 14-5881
Clone: CX1
Concentration: 0.5 mg/ml
Host/Isotype: Rat IgG2b, κ

Formulation: aqueous buffer, 0.09% sodium azide, contains stabilizer if necessary
Temperature Limitation: Store at 2-8°C.
LOT Batch Code: Refer to Vial
Use By: Refer to Vial
Caution, contains Azide

Description

The CX1 monoclonal antibody reacts with the mouse retinoic acid early inducible gamma (RAE-1γ) and weakly cross-reacts with the RAE-1α and β, but not with δ and ε. These 5 members of the RAE-1 family, along with another protein encoded by the minor histocompatibility gene complex called H60 have been identified as ligands for the mouse NKG2D molecule. These ligands are normally absent from adult tissue, however the presence of retinoic acid or certain disease conditions (such as tumors) can induce up-regulation of this protein at the cell surface. RAE-1α, -β, and -γ and H60 are expressed in BALB/c mice, but not in C57BL/6, whereas RAE-1δ, and -ε are expressed in C57BL/6 mice. It is reported that in NOD mice, both NKG2D and its ligand RAE-1 are expressed on the same NK cells, resulting in self-modulation of NKG2D expression and function.

Applications Reported

For research use only, not for diagnostic or therapeutic use. The CX1 antibody has been reported for use in flow cytometric analysis. it has also been reported in blocking of NKG2D to RAE-1 in functional assays. (Please use Functional Grade purified CX1, cat. 16-5881, in functional assays.)

Applications Tested

The CX1 antibody has been tested by flow cytometric analysis of YAC-1 cell line and mouse splenocytes. This can be used at less than or equal to 0.125 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

Cerwenka, A., A.B. Bakker, T. McClanahan, J. Wagner, J. Wu, J.H. Phillips, L.L. Lanier. (2000). “Retinoic acid early inducible genes define a ligand family for the activating NKG2D receptor in mice.” Immunity. 12(6): 721-27.
Diefenbach, A., E.R. Jensen, A.M. Jamieson, D.H. Raulet. (2001). “Rae-1 and H60 ligands of the NKG2D receptor stimulate tumour immunity.” Nature. 413(6852): 165-71.
Lodoen, M., K. Ogasawara, J.A. Hamerman, H. Arase, J.P. Houchins, E.S. Mocarski, L.L. Lanier. (2003). “NKG2D-mediated natural killer cell protection against cytomegalovirus is impaired by viral gp40 modulation of retinoic acid early inducible 1 gene molecules.” 197(10): 1245-53.

Related Products

11-4317 Streptavidin FITC
11-4811 Anti-Rat IgG FITC
12-4317 Streptavidin PE
13-4813 Anti-Rat IgG Biotin (Polyclonal)

14-4031 Rat IgG2b K Isotype Control Purified
17-4317 Streptavidin APC

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