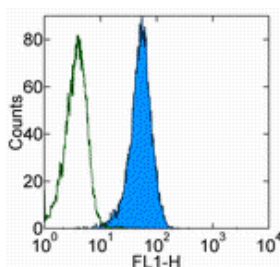


## Anti-Mouse RAE1 gamma Functional Grade Purified

**Catalog Number:** 16-5881

**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 Isotype Control Functional Grade Purified (cat. 16-4031) (open histogram) or 0.125 µg of Anti-Mouse RAE1γ Functional Grade 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 Functional Grade Purified

**REF** **Catalog Number:** 16-5881

**Clone:** CX1


**Concentration:** 1 mg/ml

**Host/Isotype:** Rat IgG2b, κ


**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 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 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<sup>5</sup> to 10<sup>8</sup> 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." *J. Virol.* 77(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)
- 16-4031 Rat IgG2b K Isotype Control Functional Grade Purified
- 17-4317 Streptavidin APC

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