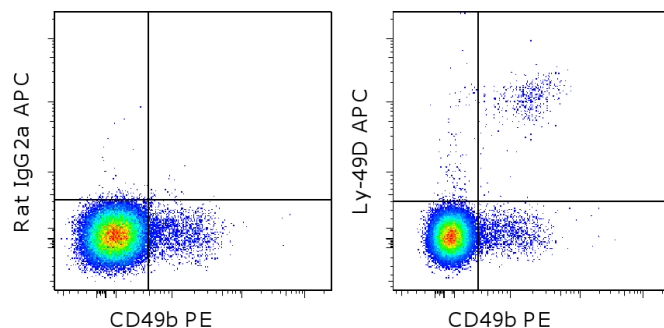


## Anti-Mouse Ly-49D APC

**Catalog Number:** 17-5782

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



Staining of C57BL/6 splenocytes with Anti-Mouse CD49b (Integrin alpha 2) PE (cat. 12-5971) and 0.25 ug of Rat IgG2a K Isotype Control APC (left) or 0.25 ug of Anti-Mouse Ly-49D APC (right). Cells in the lymphocyte gate were used for analysis.

### Product Information

**Contents:** Anti-Mouse Ly-49D APC  
**Catalog Number:** 17-5782  
**Clone:** eBio4E5 (4E5)  
**Concentration:** 0.2 mg/mL  
**Host/Isotype:** Rat IgG2a, kappa

**Formulation:** aqueous buffer, 0.09% sodium azide, may contain carrier protein/stabilizer  
**Temperature Limitation:** Store at 2-8°C. Do not freeze. Light-sensitive material.  
**Batch Code:** Refer to vial  
**Use By:** Refer to vial

### Description

The monoclonal antibody eBio4E5 (4E5) reacts with Ly-49D, an activating member of the Ly-49 family of NK cell receptors. This family of receptors form homodimers that recognize MHC Class I molecules. The activating Ly-49 receptors (Ly-49D and Ly-49H) do not contain immune receptor tyrosine-based inhibitory motifs (ITIM) in their cytoplasmic domains, distinguishing them from the inhibitory Ly-49 family members. Instead, activating Ly-49 molecules have been shown to associate with DAP12 which contains an immunoreceptor tyrosine-based activation motif (ITAM) that is required for positive signaling. Expression of different Ly-49 family members is not linked, therefore, several Ly-49 proteins can be expressed on the same cells. Expression of Ly-49D on subsets of NK cells is strain-dependent and is found in C57BL/6, CB6F1 and SJL mice, while BALB/c, DBA/2, AKR and CBA/J mice are negative for Ly-49D. In 129/J mice, eBio4E5 also recognizes Ly-49O, Ly-49V and Ly-49R. eBio4E5 is reported to have functional (activating) activity.

### Applications Reported

This eBio4E5 (4E5) antibody has been reported for use in flow cytometric analysis.

### Applications Tested

This eBio4E5 (4E5) 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 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

Hart G, Flaishon L, Becker-Herman S, Shachar I. Ly49D receptor expressed on immature B cells regulates their IFN-γ secretion, actin polymerization, and homing. J Immunol. 2003 Nov 1;171(9):4630-8. (4E5, FC, FA (activating), Pubmed)

Makrigiannis AP, Pau AT, Saleh A, Winkler-Pickett R, Ortaldo JR, Anderson SK. Class I MHC-binding characteristics of the 129/J Ly49 repertoire. J Immunol. 2001 Apr 15;166(8):5034-43. (4E5, FC and IP, Pubmed)

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## Anti-Mouse Ly-49D APC

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Raulet DH, Held W, Correa I, Dorfman JR, Wu MF, Corral L. Specificity, tolerance and developmental regulation of natural killer cells defined by expression of class I-specific Ly49 receptors. Immunol Rev. 1997 Feb;155:41-52.

Yokoyama WM, Seaman WE. The Ly-49 and NKR-P1 gene families encoding lectin-like receptors on natural killer cells: the NK gene complex. Annu Rev Immunol. 1993;11:613-35.

### Related Products

11-5991 Anti-Mouse Ly-49C/I/F/H FITC (14B11)  
12-5783 Anti-Mouse Ly-49A/D PE (eBio12A8 (12A8))  
12-5856 Anti-Mouse Ly-49A PE (A1 (Ly49A))  
12-5885 Anti-Mouse Ly-49G PE (AT-8 (AT8))  
12-5971 Anti-Mouse CD49b (Integrin alpha 2) PE (DX5)  
17-4321 Rat IgG2a K Isotype Control APC (eBR2a)  
46-5848 Anti-Mouse Ly-49E/F PerCP-eFluor® 710 (CM4)

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