

FITC anti-mouse Ly49D

Catalog # / Size: 138303 / 50 µg
138304 / 200 µg

Clone: 4E5

Isotype: Rat IgG2a, κ

Reactivity: Mouse

Preparation: The antibody was purified by affinity chromatography, and conjugated with FITC under optimal conditions. The solution is free of unconjugated FITC.

Formulation: Phosphate-buffered solution, pH 7.2, containing 0.09% sodium azide.

Concentration: 0.5 mg/ml

Storage: The antibody solution should be stored undiluted at 4°C and protected from prolonged exposure to light. **Do not freeze.**

Applications:

Applications: FC - Quality tested

Recommended Usage: Each lot of this antibody is quality control tested by immunofluorescent staining with flow cytometric analysis. For immunofluorescent staining, the suggested use of this reagent is ≤0.25 µg per million cells in 100 µl volume. It is recommended that the reagent be titrated for optimal performance for each application.

Application Notes: Additional reported applications (for relevant formats) include: immunoprecipitation¹ and blocking^{2,3} of CHO cell or Con A-activated lymphoblast killing by NK cells.

Application References:

1. Mason LH, *et al.* 1998. *J. Immunol.* 160:4148. (IP)
2. Idris A, *et al.* 1999. *Proc. Natl. Acad. Sci.* 96:6330. (FC Block)
3. George TC, *et al.* 1999. *J. Immunol.* 162:2035. (FC Block)
4. Ortaldo JR, *et al.* 1999. *J. Leukoc. Biol.* 66:512. (FC)
5. Ortaldo JR, *et al.* 1998. *J. Immunol.* 160:1158. (FC)

Description: Ly49D is a type II transmembrane protein belonging to the Ly49 family of NK-cell receptors in the C-type lectin superfamily. Ly49D is expressed on subsets of natural killer (NK) cells in C57BL/6, C3H/He and SJL mouse strains, but not Balb/c, DBA/2, AKR and CBA/J. The receptors form homodimers that bind to MHC class I alloantigens. Unlike inhibitory Ly49 family members, Ly49D lacks a cytoplasmic immunoreceptor tyrosine-based inhibitory motif (ITIM) but contains a cytoplasmic immunoreceptor tyrosine-based activation motif. The activating receptor Ly49D delivers stimulatory signals for target cell lysis upon interacting with H2-D^d, D^r and D^{sp2}, but not with H2^b or H2^k class I antigens. Cross-linking of Ly49D activates intracellular kinase activity and calcium mobilization in NK cells. In 129/J mice, 4E5 antibody cross-reacts with Ly49O, LY49R and Ly49V.

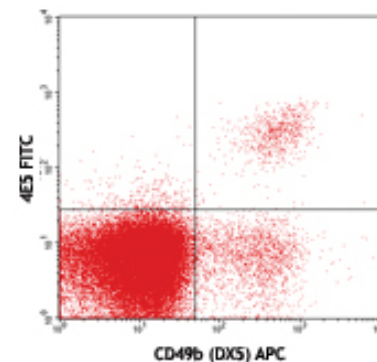
Antigen References:

1. Yokoyama WM and Seaman WE. 1993. *Annu. Rev. Immunol.* 11:613.
2. Takei F, *et al.* 1997. *Immunol. Rev.* 155:67.
3. Hanke T, *et al.* 1999. *Immunity* 11:67.
4. Mason LH, *et al.* 1996. *J. Exp. Med.* 184:2119.

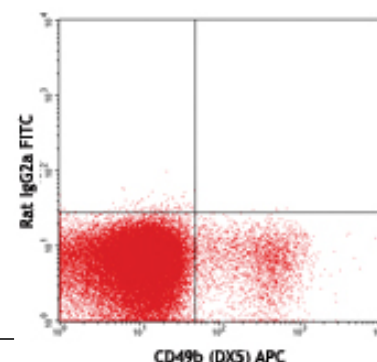
Related Products:

FITC Rat IgG2a, κ Isotype Ctrl	Clone
Cell Staining Buffer	RTK2758
RBC Lysis Buffer (10X)	
TruStain fcX™ (anti-mouse CD16/32)	93

Application
FC, ICFC
FC, ICC, ICFC
FC, ICFC
FC



C57BL/6 splenocytes stained with CD49b (DX5) APC and 4E5 FITC



C57BL/6 splenocytes stained with CD49b (DX5) APC and rat IgG2a FITC isotype control



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