SONY

Product Data Sheet

PE/Dazzle™ 594 anti-mouse CD90.2

Catalog # / Size: 1126695 / 25 µg
1126700 / 100 µg

Clone: 30-H12

Isotype: Rat IgG2b, κ

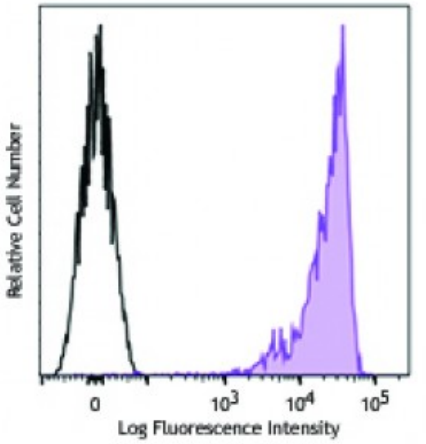
Immunogen: Mouse thymus or spleen

Reactivity: Mouse

Preparation: The antibody was purified by affinity chromatography and conjugated with PE/Dazzle™ 594 under optimal conditions. The solution is free of unconjugated PE/Dazzle™ 594 and unconjugated antibody.

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

Concentration: 0.2



C57BL/6 thymocytes were stained with CD90.2 (clone 30-H12) PE/Dazzle™ 594 (filled histogram) or rat IgG2b, κ PE/Dazzle™ 594 isotype control (open histogram).

Applications:

Applications: Flow Cytometry

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

* PE/Dazzle™ 594 has a maximum excitation of 566 nm and a maximum emission of 610 nm.

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Application Notes: Additional reported applications (for the relevant formats) include: *in vivo* and *in vitro* depletion[1,2,7], costimulation of CD3/TCR-mediated signal transduction[3,4], and immunohistochemical staining5 of acetone-fixed frozen sections. The 30-H12 antibody does not react with Thy-1.1 alloantigen of the AKR/J and PL strains. To reduce non-specific binding to cells bearing Fc-receptors, pre-incubation of cells with anti-mouse CD16/CD32, clone 93 (Cat. No. 101301/101302) is recommended prior to immunofluorescent staining. The LEAF™ purified antibody (Endotoxin <0.1 EU/µg, Azide-Free, 0.2 µm filtered) is recommended for functional assays (Cat. No. 105310).

Application References:

1. Hathcock KS. 1991. Current Protocols in Immunology. 3.4.1. (Deplete)
2. Seaman WE. 1983. *J. Immunol.* 130:1713. (Deplete)
3. Nakashima I, *et al.* 1991. *J. Immunol.* 147:1153. (Costim)
4. Nakashima I, *et al.* 1993. *J. Immunol.* 151:3511. (Costim)
5. Ledbetter JA, *et al.* 1980. *J. Exp. Med.* 152:280. (IHC)

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6. Hardy B, *et al.* 2005. *Int. Immunol.* 17:615.
7. Drobyski W, *et al.* 1996. *Blood* 87:5355. (Deplete)
8. Dyer KD, *et al.* 2007. *J. Immunol.* 179:1693. (FC) PubMed
9. Sungur CM, *et al.* 2013. *PNAS.* 110:7401. PubMed

Description: CD90.2 is a 25-35 kD immunoglobulin superfamily member also known as Thy1.2. It is expressed on hematopoietic stem cells and neurons, all thymocytes, and peripheral T cells in Thy1.2 bearing mouse strains (Balb/c, CBA/J, C3H/He, C57BL/-, DBA, NZB/-). CD90.2 is a glycosylphosphatidylinositol (GPI)-anchored membrane glycoprotein involved in signal transduction. CD90.2 is involved in costimulation of lymphocyte proliferation and induction of hematopoietic stem cells differentiation. CD90.2 has been shown to interact with CD45. The 30-H12 antibody has been reported to induce Ca^{2+} flux in thymocytes and, in combination with antibody against the CD3/TCR complex, promote thymocyte apoptosis and inhibit CD3-mediated proliferative responses of mature T lymphocytes.

Antigen References:

1. Barclay A, *et al.* 1997. The Leukocyte Antigen FactsBook Academic Press.
2. Craig W, *et al.* 1993. *J. Exp. Med.* 177:1331.
3. Reif AE and Schlesinger M. 1989. Cell Surface Antigen Thy-1.
4. Mayani H, *et a*