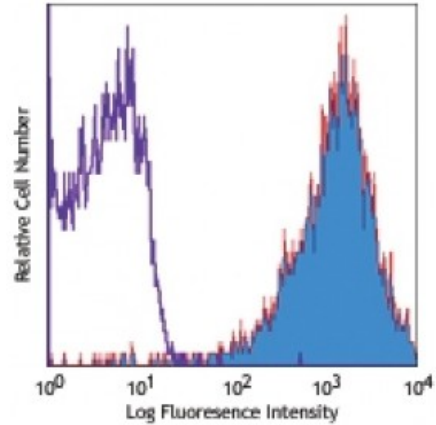


**Biotin anti-mouse CD90.2**

**Catalog # / Size:** 1126520 / 500 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 biotin under optimal conditions. The solution is free of unconjugated biotin.  
**Formulation:** Phosphate-buffered solution, pH 7.2, containing 0.09% sodium azide.  
**Concentration:** 0.5



C57BL/6 mouse thymocytes stained with biotinylated 30-H12, followed by Sav-PE

**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 10<sup>6</sup> cells in 100 microL volume. It is recommended that the reagent be titrated for optimal performance for each application.

**Application Notes:** Additional reported applications (for the relevant formats) include: *in vivo* and *in vitro* depletion<sup>1,2,7</sup>, costimulation of CD3/TCR-mediated signal transduction<sup>3,4</sup>, and immunohistochemical staining<sup>5</sup> 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)
  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. Kamala T. 2013. *J Immunol Methods.* 328:204. [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  $\text{Ca}^{2+}$  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*