

**Brilliant Violet 510™ anti-mouse CD45**

**Catalog # / Size:** 1115685 / 125 µl  
1115690 / 50 µg

**Clone:** 30-F11

**Isotype:** Rat IgG2b, κ

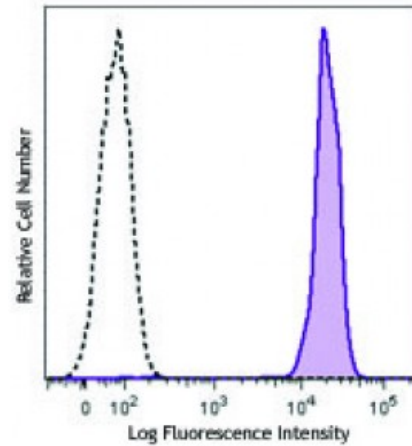
**Immunogen:** Mouse thymus or spleen

**Reactivity:** Mouse

**Preparation:** The antibody was purified by affinity chromatography and conjugated with Brilliant Violet 510™ under optimal conditions. The solution is free of unconjugated Brilliant Violet 510™ and unconjugated antibody.

**Formulation:** Phosphate-buffered solution, pH 7.2, containing 0.09% sodium azide and BSA (origin USA).

**Concentration:** microg sizes: 0.2 mg/ml  
microL sizes: lot-specific



C57BL/6 mouse splenocytes were stained with CD45 (clone 30-F11) Brilliant Violet 510™.

**Applications:**

**Applications:** Flow Cytometry

**Recommended Usage:** Each lot of this antibody is quality control tested by immunofluorescent staining with flow cytometric analysis. For immunofluorescent staining using the microg size, the suggested use of this reagent is ≤0.5 microg per million cells in 100 microL volume. For immunofluorescent staining using the microL size, the suggested use of this reagent is ≤5 microL per million cells or 5 microL per 100 microL of whole blood. It is recommended that the reagent be titrated for optimal performance for each application.

Brilliant Violet 510™ excites at 405 nm and emits at 510 nm. The bandpass filter 510/50 nm is recommended for detection, although filter optimization may be required depending on other fluorophores used. **Be sure to verify that your cytometer configuration and software setup are appropriate for detecting this channel.** Refer to your instrument manual or manufacturer for support. Brilliant Violet 510™ is a trademark of Sirigen Group Ltd.

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**Application Notes:** Clone 30-F11 reacts with all isoforms and both CD45.1 and CD45.2 alloantigens of CD45.

Additional reported applications (for relevant formats) include: immunoprecipitation<sup>3</sup>, complement-dependent cytotoxicity<sup>1,5</sup>, immunohistochemistry (acetone-fixed frozen sections, zinc-fixed paraffin-embedded sections and formalin-fixed paraffin-embedded sections)<sup>4,6</sup> and Western blotting<sup>7</sup>. The LEAF™ purified antibody (Endotoxin <0.1 EU/µg, Azide-

Free, 0.2 µm filtered) is recommended for functional assays (Cat. No. 103120).

- Application**  
**References:**
1. Podd BS, *et al.* 2006. *J. Immunol.* 176:6532. (FC, CMCD) [PubMed](#)
  2. Haynes NM, *et al.* 2007. *J. Immunol.* 179:5099. (FC)
  3. Ledbetter JA, *et al.* 1979. *Immunol. Rev.* 47:63. (IP)
  4. Simon DI, *et al.* 2000. *J. Clin. Invest.* 105:293. (IHC)
  5. Seaman WE. 1983. *J. Immunol.* 130:1713. (CMCD)
  6. Cornet A, *et al.* 2001. *P. Natl. Acad. Sci. USA* 98:13306. (IHC)
  7. Tsuboi S and Fukuda M. 1998. *J. Biol. Chem.* 273:30680. (WB) [PubMed](#)
  8. Liu F, *et al.* 2012. *Blood.* 119:3295. [PubMed](#)
  9. Pelletier AN, *et al.* 2012. *J. Immunol.* 188:5561. [PubMed](#)
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**Description:** CD45 is a 180-240 kD glycoprotein also known as the leukocyte common antigen (LCA), T200, or Ly-5. It is a member of the protein tyrosine phosphatase (PTP) family, expressed on all hematopoietic cells except mature erythrocytes and platelets. There are different isoforms of CD45 that arise from variable splicing of exons 4, 5, and 6, which encode A, B, and C determinants, respectively. CD45 plays a key role in TCR and BCR signal transduction. These isoforms are very specific to the activation and maturation state of the cell as well as cell type. The primary ligands for CD45 are galectin-1, CD2, CD3, CD4, TCR, CD22, and Thy-1.

- Antigen**  
**References:**
1. Barclay A, *et al.* 1997. *The Leukocyte Antigen FactsBook* Academic Press.
  2. Trowbridge IS, *et al.* 1993. *Annu. Rev. Immunol.* 12:85.
  3. Kishihara K, *et al.* 1993. *Cell* 74:143.
  4. Pulido R, <