

**Spark YG™ 593 anti-mouse CD45**

**Catalog # / Size:** 1115910 / 100 µg  
1115905 / 25 µg

**Clone:** 30-F11

**Isotype:** Rat IgG2b, κ

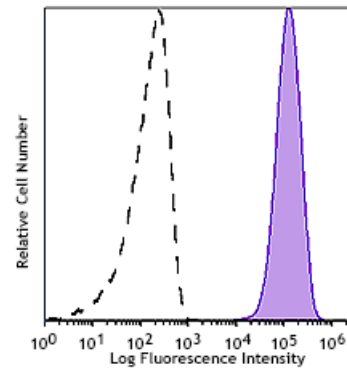
**Immunogen:** Mouse thymus or spleen

**Reactivity:** Mouse

**Preparation:** The antibody was purified by affinity chromatography and conjugated with Spark YG™ 593 under optimal conditions.

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

**Concentration:** 0.5 mg/mL



C57BL/6 splenocytes were stained with anti-mouse CD45 (clone 30F-11) Spark YG™ 593 (filled histogram) or unstained 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 µg per million cells in 100 µL volume. It is recommended that the reagent be titrated for optimal performance for each application.

\* Spark YG™ 593 has a maximum excitation of 573 nm and a maximum emission of 593 nm.

**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 Ultra-LEAF™ purified antibody (Endotoxin < 0.01 EU/µg, Azide-Free, 0.2 µm filtered) is recommended for functional assays (Cat. No. 103163 and 103164).

- 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](#)

**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, *et al.* 1988. *J Immunol.* 140:3851.