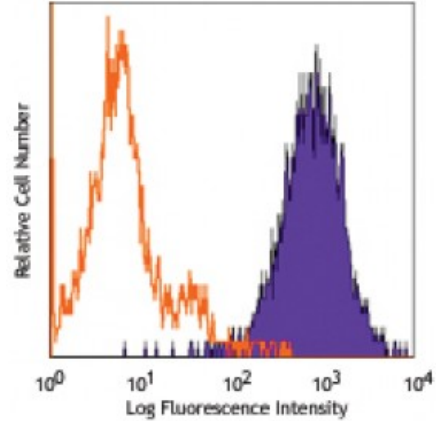


**Biotin anti-mouse CD70**

**Catalog # / Size:** 1123015 / 50 µg  
**Clone:** FR70  
**Isotype:** Rat IgG2b, κ  
**Immunogen:** BALB/c mouse B lymphoma A20.2J  
**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



A20 cells stained with FR70 Biotin, 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: immunoprecipitation<sup>1</sup>, *in vitro* blocking of CD70-CD27 binding and inhibition of T and NK cell responses<sup>1-3</sup>, and immunohistochemistry<sup>4</sup> of acetone-fixed frozen sections. For the most successful immunofluorescent staining results, it may be necessary to maximize signal over background by using a relatively bright fluorochrome-antibody conjugate (Cat. No. 104605/104606) or by using a high sensitivity, three-layer staining technique (e.g., including a biotinylated antibody (Cat. No. 104604) or biotinylated anti-rat IgG (Cat. No. 405402) second step, followed by SAV-PE (Cat. No. 405204)). 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. 104608).

- Application References:**
1. Oshima H, *et al.* 1998. *Int. Immunol.* 10:517. (Block IP)
  2. Akiba HH, *et al.* 1999. *J. Immunol.* 162:7058. (Block)
  3. Takeda K, *et al.* 2000. *J. Immunol.* 164:1741. (Block)
  4. Henke A, *et al.* 2000. *J. Virol.* 74:4284. (IHC)
  5. Brown SL, *et al.* 2007. *J. Clin. Invest.* 117:258.

**Description:** CD70 is a type II transmembrane protein. It is a member of the TNF superfamily, expressed on activated B cells, activated dendritic cells, and some activated T cells (low levels). CD70 interacts with CD27 to promote T-B cell cross-stimulation and co-stimulate B cell proliferation and immunoglobulin production. Cells expressing CD70 can co-stimulate T cell proliferation and enhance the production of cytokines. The FR70 antibody blocks CD70 binding to CD27.

**Antigen** 1. Barclay AN, *et al.* 1997. The Leukocyte Antigen FactsBook Academic Press.

- References:**
2. Tesselaar K, *et al.* 1997. *J. Immunol.* 159:4959.
  3. Akiba H, *et al.* 1999. *J. Immunol.* 162:7058.