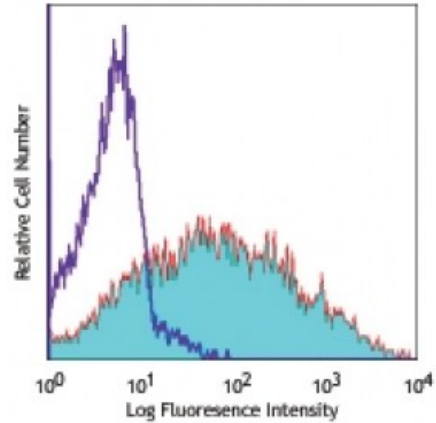


Biotin anti-human CD137 (4-1BB)

Catalog # / Size: 2149030 / 100 µg
Clone: 4B4-1
Isotype: Mouse IgG1, κ
Immunogen: Ectodomain of recombinant human 4-1BB fusion protein
Reactivity: Human
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.
Workshop Number: VI C-7
Concentration: 0.5



PHA-stimulated (4 days) human peripheral blood mononuclear cells stained with biotinylated 4B4-1, 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 ≤ 0.5 microg per million cells in 100 microL volume or 100 microL of whole blood. 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^{1,4}, inhibition of cytokine production^{2,3}, and ELISA. For most successful immunofluorescent staining results, it may be important to maximize signal over background by using a relatively bright fluorochrome-antibody conjugate (Cat. No. 309804) or by using a high sensitivity, three-layer staining technique (e.g., including a biotinylated anti-mouse IgG second step (Cat. No. 405303), followed by Streptavidin-PE (Cat. No. 405204)).

- Application References:**
1. Garni-Wagner B, *et al.* 1996. *Cell. Immunol.* 169:91. (IP)
 2. Salih HR, *et al.* 2000. *J. Immunol.* 165:2903. (FA)
 3. Kienzle G, *et al.* 2000. *Int. Immunol.* 12:73. (FA)
 4. Langstein J, *et al.* 1998. *J. Immunol.* 160:2488. (IP)

Description: CDw137 is a 39 kD transmembrane protein also known as 4-1BB. It is expressed on activated T cells. CDw137 is a type I membrane protein and a member of the tumor necrosis factor receptor superfamily. CDw137 appears to be important for T cell proliferation and survival, and induces monocyte activation through its interaction with 4-1BB ligand.

- Antigen References:**
1. Gruss H, *et al.* 1995. *Blood* 85:3378.
 2. Sica G, *et al.* 2000. *Adv. Exp. Med. Biol.* 465:355.
 3. Alderson M, *et al.* 1994. *Eur. J. Immunol.* 24:2219.
 4. Schwarz H, *et al.* 199