

**PE anti-human CD137 (4-1BB)**

**Catalog # / Size:** 2149015 / 25 tests  
2149020 / 100 tests

**Clone:** 4B4-1

**Isotype:** Mouse IgG1, κ

**Immunogen:** Ectodomain of recombinant human 4-1BB fusion protein

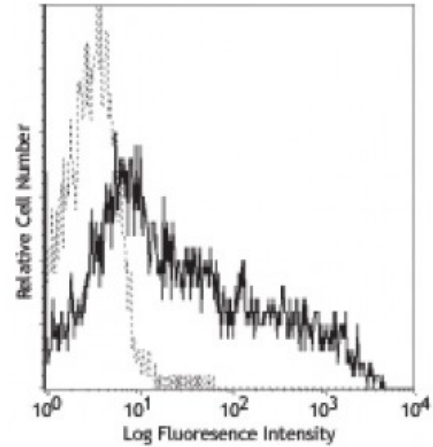
**Reactivity:** Human

**Preparation:** The antibody was purified by affinity chromatography, and conjugated with PE under optimal conditions. The solution is free of unconjugated PE and unconjugated antibody.

**Formulation:** Phosphate-buffered solution, pH 7.2, containing 0.09% sodium azide and 0.2% (w/v) BSA (origin USA).

**Workshop Number:** VI C-7

**Concentration:** Lot-specific



PHA stimulated (3 days) peripheral blood mononuclear cells stained with 4B4-1 PE

**Applications:**

**Applications:** Flow Cytometry

**Recommended Usage:** Each lot of this antibody is quality control tested by immunofluorescent staining with flow cytometric analysis. **Test size products are transitioning from 20 microL to 5 microL per test.** Please check your vial or your CoA to find the suggested use of this reagent per million cells in 100 microL staining volume or per 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<sup>1,4</sup>, inhibition of cytokine production<sup>2,3</sup>, 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.

