

# Product Data Sheet

## Purified anti-human CD137 (4-1BB)

**Catalog # / Size:** 309801 / 25 µg  
309802 / 100 µg

**Clone:** 4B4-1

**Isotype:** Mouse IgG1, κ

**Workshop Number:** VI C-7

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

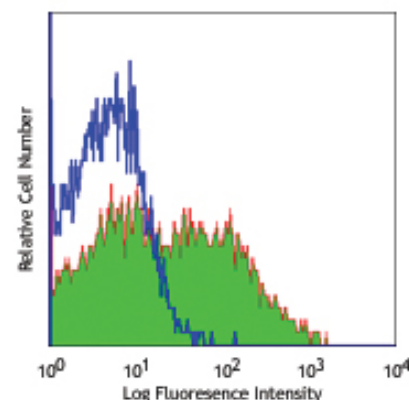
**Reactivity:** Human, **Cross-Reactivity:** Chimpanzee, Baboon, Cynomolgus, Rhesus

**Preparation:** The antibody was purified by affinity chromatography.

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

**Concentration:** 0.5 mg/ml

**Storage:** The antibody solution should be stored undiluted at 4°C.



PHA-stimulated (3 days) human peripheral blood mononuclear cells stained with purified 4B4-1, followed by biotinylated anti-mouse IgG and Sav-PE

## Applications:

**Applications:** FC - Quality tested  
IP, ELISA - Reported in the literature

**Recommended Usage:** Each lot of this antibody is quality control tested by immunofluorescent staining with flow cytometric analysis. For immunofluorescent staining, the suggested use of this reagent is ≤ 0.5 µg per million cells in 100 µl volume or 100 µl 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 SAV-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.* 1996. *Blood* 87:2839.

### Related Products:

**Product**  
Purified Mouse IgG1, κ Isotype Ctrl  
Biotin Goat anti-mouse IgG (minimal x-reactivity)  
PE Goat anti-mouse IgG (minimal x-reactivity)  
Cell Staining Buffer  
RBC Lysis Buffer (10X)  
Purified anti-human 4-1BB Ligand (CD137L)

**Clone**  
MOPC-21  
Poly4053  
Poly4053

5F4

### Application

FC, ICFC, ICC, IF, IHC, IP, WB  
FC, ELISA, IHC, IF, WB  
FC  
FC, ICC, ICFC  
FC, ICFC  
FC



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