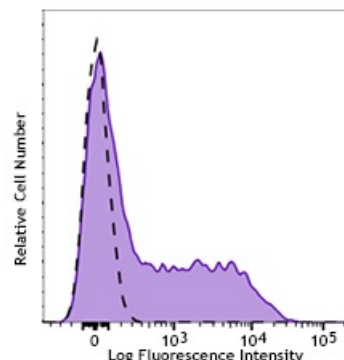


APC/Fire™ 750 anti-human CD137 (4-1BB)

Catalog # /	2149170 / 100 tests
Size:	2149165 / 25 tests
Clone:	4B4-1
Isotype:	Mouse IgG1, κ
Immunogen:	Ectodomain of recombinant human 4-1BB fusion protein
Reactivity:	Human, Non-human primate, Other
Preparation:	The antibody was purified by affinity chromatography and conjugated with APC/Fire™ 750 under optimal conditions.
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) human peripheral blood mononuclear cells stained with CD137 (clone 4B4-1) APC/Fire™ 750 (filled histogram) or mouse IgG1, κ APC/Fire™ 750 isotype control (open histogram).

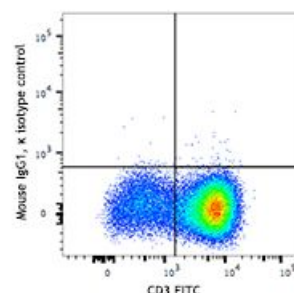
Applications:

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 5 µl per million cells in 100 µl staining volume or 5 µl per 100 µl of whole blood.

* APC/Fire™ 750 has a maximum excitation of 650 nm and a maximum emission of 787 nm.

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)).



Human peripheral blood lymphocytes were stained with anti-human CD4 FITC and anti-human CD25 (clone M-A251) Spark YG™ 581 (left) or anti-human CD4 FITC only (right).

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:

CD137 is a 39 kD transmembrane protein also known as 4-1BB. It is expressed on activated T cells. CD137 is a type I membrane protein and a member of the tumor necrosis factor receptor superfamily. CD137 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.