

Antibodies

Anti-Human CD137 Antibody, Clone 4B4-1, PE

Mouse monoclonal IgG1 antibody against human, monkey CD137, PE-conjugated



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TOLL FREE PHONE 1 800 667 0322 • PHONE +1 604 877 0713

INFO@STEMCELL.COM • TECHSUPPORT@STEMCELL.COM

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Catalog #100-1356

120 Tests 1.67 µl/test

Product Description

This mouse monoclonal antibody (clone 4B4-1, PE-conjugated) reacts with human and monkey CD137, a type I membrane protein and a member of the tumor necrosis factor (TNF) receptor superfamily. Following activation, it is expressed on multiple immune cells, such as natural killer (NK), T, and dendritic cells. CD137 plays a role in cytokine activation, preventing activation-induced cell death, and it also plays a role in promoting the activity of cytotoxic T cells. As an immune stimulator, CD137 can influence the tumor microenvironment by increasing the cytotoxicity of T and NK cells as well as their ability to infiltrate tumors. For these reasons, CD137 represents a strong candidate for cancer immunotherapy. CD137 deficiency in humans has been hypothesized to inhibit differentiation and function of T cells; CD137-deficient mice have been reported to have impaired T cell cytotoxicity, proliferation, and survival.

Target Antigen Name:	CD137
Alternative Names:	4-1BB, CDw137, ILA, TNFRSF9
Gene ID:	3604
Species Reactivity:	Human, Monkey
Host Species:	Mouse
Clonality:	Monoclonal
Clone:	4B4-1
Isotype:	IgG1, kappa
Immunogen:	Fusion protein of recombinant human 4-1BB ectodomain
Conjugate:	PE (Phycoerythrin)

Applications

Verified:	FC
Reported:	CellSep, FC

Abbreviations: CellSep: Cell separation; ChIP: Chromatin immunoprecipitation; FA: Functional assay; FACS: Fluorescence-activated cell sorting; FC: Flow cytometry; ICC: Immunocytochemistry; IF: Immunofluorescence microscopy; IHC: Immunohistochemistry; IHC-P: Immunohistochemistry (paraffin-embedded); IP: Immunoprecipitation; RIA: Radioimmunoassay; WB: Western blotting

Properties

Formulation:	50 mM sodium phosphate, 100 mM potassium chloride, 150 mM sodium chloride, pH 7.5, containing 5% glycerol, 0.2% (w/v) bovine serum albumin, and 0.04% sodium azide
Purification:	The antibody was purified by affinity chromatography.
Stability and Storage:	Product stable at 2 - 8°C when stored undiluted. Do not freeze. Stable until expiry date (EXP) on label.
Directions for Use:	For flow cytometry, the suggested use of this antibody is 1.67 µL per 5 x 10 ⁵ cells in 80 µL. It is recommended that the antibody be titrated for optimal performance for each application.

Related Products

For a complete list of antibodies, including other conjugates, sizes, and clones, as well as related products available from STEMCELL Technologies, visit www.stemcell.com/antibodies, or contact us at techsupport@stemcell.com.

References

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2. Somekh I et al. (2019) CD137 deficiency causes immune dysregulation with predisposition to lymphomagenesis. *Blood* 134(18): 1510–6.
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4. Wu M et al. (2019) Induction of CD137 expression by viral genes reduces T cell costimulation. *Journal of Cellular Physiology* 234(11): 21076–88. (FC)
5. Wehler T. C. et al. (2008) Rapid identification and sorting of viable virus-reactive CD4+ and CD8+ T cells based on antigen-triggered CD137 expression. *Journal of Immunological Methods* 339(1): 23–37. (CellSep, FC)

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