abcam

ab93520

FITC Anti-4-1BB/CD137 antibody [4B4 (4B4-1)]

Anti-4-1BB/CD137 antibody [4B4 (4B4-1)] conjugated to FITC - suitable for flow cytometry, and reacts with human samples. Clone [4B4 (4B4-1)] is a mouse monoclonal antibody cited in 3 publications.

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Key facts

Isotype	IgG1
Host species	Mouse
Conjugation	FITC
Excitation/Emission	Ex: 495nm, Em: 519nm
Storage buffer	pH: 7.2
Form	Liquid
Clonality	Monoclonal
Immunogen	Cell preparation containing TNFRSF9 protein. The exact immunogen used to generate this antibody is proprietary information. Database link Q07011
Clone number	4B4 (4B4-1)
Purification technique	Affinity purification Protein G
Light chain type	kappa

Reactivity data

Flow Cyt

Tested

Species	Human

Dilution info	5 µL for 10^5-10^8 Cells
Notes	ab106163 - Mouse monoclonal IgG1, is suitable for use as an isotype control with this antibody. Use 5µl for 10^{5-8} cells in a final volume of 100µl.

Target data

See full target information 4-1BB/CD137

Function	Receptor for TNFSF9/4-1BBL. Conveys a signal that enhances CD8(+) T-cell survival, cytotoxicity, and mitochondrial activity, thereby promoting immunity against viruses and tumors (Probable).

Storage

Shipped at conditions	Blue Ice
Appropriate short-term storage conditions	+4°C
Appropriate long-term storage conditions	+4°C

Supplementary info

This supplementary information is collated from multiple sources and compiled automatically.

Activity summary	CD137 also known as 4-1BB or TNFRSF9 is a protein that functions as a costimulatory receptor in the immune system. It belongs to the tumor necrosis factor receptor (TNFR) superfamily. CD137 has a mass of approximately 30 kDa. Expression of CD137 occurs mainly on activated T lymphocytes including both CD8+ and CD4+ T cells as well as natural killer (NK) cells dendritic cells and monocytes. The CD137 ligand (CD137L) is the counterpart that engages this receptor transmitting signals important for immune response regulation.
Biological function summary	CD137 plays an important role in T cell activation and survival. It is a member of a receptor-ligand system that enhances immune cell functions. CD137 is part of a receptor complex that when bound by its ligand CD137L promotes cell proliferation and cytokine production. It also supports the development of memory T cells contributing to the body's ability to mount long-term immune responses.
Pathways	CD137 takes part in the NF-kB signaling and MAPK pathways. These pathways are vital for regulating immune responses and inflammation. CD137 signaling through these pathways involves interaction with proteins such as TRAF1 and TRAF2 which help mediate downstream effects critical for cell survival and proliferation. These interactions enhance the body's defense against pathogens and tumors.

Associated diseases and disorders	CD137 is associated with cancer immunotherapy and autoimmune diseases. In cancer CD137 enhances the anti-tumor activity of immune cells making it a target for immunotherapy strategies. For autoimmune diseases abnormal CD137 expression can lead to excessive immune responses contributing to disease pathogenesis. The protein is also connected to TNF-alpha through its involvement in inflammation suggesting potential intervention points for modulating immune response in related diseases.

Product promise

Tested

We have tested this species and application combination and it works. It is covered by our product promise.

Expected

We have not tested this specific species and application combination in-house, but expect it will work. It is covered by our product promise.

Predicted

This species and application combination has not been tested, but we predict it will work based on strong homology. However, this combination is not covered by our product promise.

Not recommended

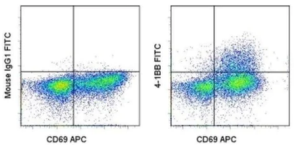
We do not recommend this combination. It is not covered by our product promise.

We are dedicated to supporting your work with high quality reagents and we are here for you every step of the way should you need us.

In the unlikely event of one of our products not working as expected, you are covered by our product promise.

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Terms & Conditions.

1 product image



Flow Cytometry - FITC Anti-4-1BB/CD137 antibody [4B4 (4B4-1)] (ab93520)

4-1BB/CD137 Flow Cytometry staining using mouse Anti-4-1BB/CD137 antibody

Staining of ConA-stimulated human peripheral blood cells with Anti-Human CD69 APC and Mouse IgG1 kappa Isotype Control FITC (left) or ab93520 (right). Total viable cells were used for analysis.

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.