

## Anti-4-1BB [4B4-1-1] Bulk Size Ab01689-3.3-BT

This antibody was created using our proprietary Fc Silent™ engineered Fc domain containing key point mutations that abrogate binding to Fc gamma receptors.

This reformatted mouse antibody was made using the variable domain sequences of the original Mouse IgG1 format, for improved compatibility with existing reagents, assays and techniques.

**Isotype and Format:** Mouse IgG2b, [Fc Silent™](#), Kappa

**Clone Number:** 4B4-1-1

**Alternative Name(s) of Target:** CD137; MGC2172; Tumor necrosis factor receptor superfamily member 9 (TNFRSF9); T cell antigen ILA; Interleukin activated receptor; 4-1BB ligand receptor CDw137; T-cell antigen 4-1BB homolog; T-cell antigen ILA.

**UniProt Accession Number of Target Protein:** Q07011

**Published Application(s):** Block, ELISA, FC, IHC

**Published Species Reactivity:** Human

**Immunogen:** The original antibody was generated by immunizing BALB/c mice with a fusion protein of human 4-1BB antigen and glutathione s transferase (GST).

**Specificity:** This antibody binds to the human 4-1BB, which is expressed on the surface of activated T cells.

**Application Notes:** The antibody has good binding affinity for Con A-activated T cells and has an immunosuppressive activity towards lymphocyte proliferation in the in vitro mixed lymphocyte reaction. The binding of antibody to surface expressed 4-1BB molecule was assessed using flow cytometry and ELISA was used to check whether the cell culture had binding affinity to 4-1BB (Kim et al., 1995). The interaction of this antibody with CD137 is reported to induce an increase in TNF- $\alpha$  production by monocytes. This antibody competes with mAb M121 for binding to CD137 (PMID: 10607752). This antibody also induces the production of IFN- $\gamma$  in NK cells in presence of IL-15 (PMID: 20008791). This antibody can be used in blocking assays and staining methods (PMID: 14746806). Humanized versions of this antibody (Hz4B4-1) and (Hz4B4-2) showed a 1.5 fold and 7.3 fold increase in binding affinity for 4-1BB as compared to their parental mouse antibody. Additionally, H4B4 mediated antibody-dependent cellular toxicity of activated human peripheral blood T cells and CEM cells in a dose dependent manner (PMID: 11186149). Humanized version of this antibody is available on request.

**Antibody First Published in:** Kim et al. Immunoregulatory effects of a monoclonal antibody to human 4-1 bb molecule on alloantigen-mediated immune responses. Proceedings of the Korean Society of Applied Pharmacology (1995), pg 82-82.

[PMID:](#)

**Note on publication:** Describes the generation of the antibody.

## Product Form

**Size:** 1 mg Purified antibody in bulk size.

**Purification:** Protein A affinity purified

**Supplied In:** PBS only.

**Storage Recommendation:** Store at 4°C for up to 3 months. Note, this antibody is provided without added preservatives, it is therefore recommended this antibody be handled under sterile conditions. For longer storage, aliquot and store at -20°C.

**Concentration:** 1 mg/ml.

Important note – This product is for research use only. It is not intended for use in therapeutic or diagnostic procedures for humans or animals.