

## Anti-4-1BB [4B4-1-1] Bulk Size Ab01689-10.0-BT

This chimeric human 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:** Human IgG1, 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 4-1bb 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.