

Technical Data Sheet

Purified Anti-Human CD137

Product Information

Material Number:	552532
Alternate Name:	4-1BB, CDw137
Size:	0.5 mg
Concentration:	0.5 mg/ml
Clone:	h41BB-M127
Isotype:	Mouse IgG1, κ
Reactivity:	QC Testing: Human
Storage Buffer:	Aqueous buffered solution containing $\leq 0.09\%$ sodium azide.

Description

Human 4-1BB, also known as CDw137, is a type I transmembrane glycoprotein belonging to the tumor necrosis factor receptor (TNFR) superfamily. Naïve T cells lack the 4-1BB, which is not only induced upon T cell activation, but also remains on activated T cells. It has been reported that the expression of 4-1BB is restricted to primed CD4+ and CD8+ cells. When triggered by either 4-1BB ligand or antibody ligation, the 4-1BB molecule can act as a co-stimulator to induce T-cell activation and proliferation. In recent studies, 4-1BB has been emphasized for its effect on the development and survival of functionally active effector CD8 (+) T cells against tumors, virus infections, allogenic immune responses, and for potential therapeutic application.

Preparation and Storage

The monoclonal antibody was purified from tissue culture supernatant or ascites by affinity chromatography.
Store undiluted at 4° C.

Application Notes

Application

ELISA Capture	Routinely Tested
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Recommended Assay Procedure:

ELISA Capture: Purified h41BB-M127 anti-human 4-1BB antibody (Cat. No. 552532) is useful as a capture antibody for a sandwich ELISA which measures human 4-1BB protein levels. Purified M127 anti-human 4-1BB antibody can be paired with biotinylated 4B4-1 antihuman 4-1BB (Cat. No. 552533) as the detection antibody, with recombinant human 4-1BB:Fc fusion protein (please inquire) as the standard. This capture antibody should be titrated between 1 - 4 $\mu\text{g/ml}$ to determine the optimal coating concentration for ELISA. To obtain linear standard curves, doubling dilutions of recombinant human 4-1BB ranging from 2000 to 15 pg/ml are recommended for inclusion in each ELISA plate. For specific methodology, please visit the protocols section or chapter on ELISA in the Immune Function Handbook, both of which are posted on our web site, www.bdbiosciences.com.

This ELISA antibody pair shows no cross-reactivity with the following recombinant human cytokines: IL-1RI, IL-1RII, IL-1 α , IL-1 β , IL-2, IL-2sR- α , IL-3, IL-4, IL-4sR, IL-5, IL-6, IL-6R gp130, IL-7, IL-8, IL-10, IL-12 p40, IL-12 p70, IL-13, IL-15, TNF, LT- α , sTNFRII, GMCSF, TGF β , IFN γ , CD40L, TRAIL, FasL.

Suggested Companion Products

Catalog Number	Name	Size	Clone
552533	Biotin Anti-Human CD137	0.5 mg	4B4-1

Product Notices

- Since applications vary, each investigator should titrate the reagent to obtain optimal results.
- Please refer to www.bdbiosciences.com/pharmingen/protocols for technical protocols.
- Caution: Sodium azide yields highly toxic hydrazoic acid under acidic conditions. Dilute azide compounds in running water before discarding to avoid accumulation of potentially explosive deposits in plumbing.

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References

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- Michel J, Schwarz H. Expression of soluble CD137 correlates with activation-induced cell death of lymphocytes. *Cytokine.* 2000; 12(6):742-746.(Clone-specific: (Co)-stimulation)
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