



# Anti-Human 4-1BB receptor

20150223ML



**FOR RESEARCH ONLY! NOT FOR HUMAN USE!**

<b>Cat.-no.:</b>	<b>102-P100G</b>
Size:	100 µg
Lot. No.:	According to product label

**Preparation:** Produced from sera of goats pre-immunized with highly pure (>98%) recombinant human 4-1BB Receptor. Anti-Human 4-1BB Receptor specific antibody was purified by affinity chromatography employing immobilized h4-1BB Receptor matrix.

## Target Background

<b>Synonyms (Target):</b>	TNFRSF9; ILA; 4-1BB; CD137; CDw137
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4-1BB (or human 4-1BBL receptor) is an inducible T cell surface protein belonging to the TNF receptor superfamily. It is alternatively known as TNFR-SF9, CD137, and ILA. The 255 amino acid is a type I transmembrane protein having in its extracellular domain four of the cysteine-rich motifs that are characteristic of the TNF receptor superfamily. The 30 kDa glycoprotein exists both as a monomer and as a dimer on T cells. The human and mouse proteins share 60% amino acid identity. 4-1BB is absent from naive T cells, but it is upregulated and continually expressed following T cell activation. The natural ligand, 4-1BBL, is a member of the TNF superfamily and is expressed on activated antigen presenting cells including dendritic cells, macrophages, and B cells. Crosslinking of 4-1BB by 4-1BBL or by agonistic antibodies transmits a potent co stimulatory signal that enhances the effect of other activating signals such as PHA or antiCD3 antibodies. 4-1BB signals through the TFAF2NIK pathway resulting in activation of NFκB and ultimately promoting proliferation and survival of T cells.

## Database References Target

<b>Protein RefSeq:</b>	NP_001552.2
<b>Uniprot ID:</b>	Q07011
<b>mRNA RefSeq:</b>	NM_001561

## Product Specifications

<b>Species reactivity</b>	Human
<b>Clone/Ab feature</b>	Goat IgG
<b>Cross reactivity</b>	Human
<b>Host</b>	Goat
<b>Clonality</b>	Polyclonal Antibody
<b>Purification</b>	Antigen-affinity purified
<b>Immunogen</b>	highly pure (>98%) recombinant human 4-1BB Receptor
<b>Formulation</b>	lyophilized from PBS
<b>Reconstitution buffer</b>	water

**Reconstitution:** Reconstitute the antibody in sterile water to a concentration of 0.1 - 1.0 mg/ml.

**Stability:** The lyophilized antibody is stable for at least 2 years from date of receipt at -20°C. The reconstituted antibody is stable for at least two weeks at 2-8°C. Frozen aliquots are stable for at least 6 months when stored at -20°C.



**AVOID REPEATED FREEZE AND THAW CYCLES!**

## Applications

**Western Blot:** To detect h4-1BB Receptor by Western Blot analysis this antibody can be used at a concentration of 0.1 - 0.2 µg/ml. Used in conjunction with compatible secondary reagents the detection limit for recombinant h4-1BB Receptor is 1.5 - 3.0 ng/lane, under either reducing or non-reducing conditions.

**ELISA: Indirect:** To detect h4-1BB Receptor by indirect ELISA (using 100 µl/well antibody solution) a concentration of 0.5 - 2.0 µg/ml of this antibody is required. This antigen affinity purified antibody, in conjunction with compatible secondary reagents, allows the detection of at least 0.2 - 0.4 ng/well of recombinant h4-1BB Receptor.

**Sandwich:** To detect h4-1BB Receptor by sandwich ELISA (using 100 µl/well antibody solution) a concentration of 0.5 - 2.0 µg/ml of this antibody is required. This antigen affinity purified antibody, in conjunction with an appropriate secondary conjugated antibody, allows the detection of at least 0.2 - 0.4 ng/well of recombinant h4-1BB Receptor.

**NOTE: OPTIMAL DILUTIONS SHOULD BE DETERMINED BY EACH LABORATORY FOR EACH APPLICATION!**