

## Recombinant Human 4-1BB Receptor (rh 4-1BBR / CD137)

**Synonyms:** Tumor necrosis factor receptor superfamily member 9, 4-1BB ligand receptor T-cell, antigen 4-1BB homolog, T-cell antigen ILA

**Introduction:** The protein encoded by this gene is a member of the TNF-receptor superfamily. This receptor contributes to the clonal expansion, survival and development of T cells. It can also induce proliferation in peripheral monocytes, enhance T cell apoptosis induced by TCR/CD3 triggered activation and regulate CD28 co-stimulation to promote Th1 cell responses. The expression of this receptor is induced by lymphocyte activation. TRAF adaptor proteins have been shown to bind to this receptor and transduce the signals leading to activation of NF-kappaB.

**Description:** Recombinant Human 4-1BB Receptor produced in E.Coli is a single, non-glycosylated polypeptide chain containing 167 amino acids, having a molecular mass of 17718 Dalton and containing the cysteine rich TNFR-like extracellular domain of 4-1BB Receptor. The 4-1BB Receptor is purified by proprietary chromatographic techniques.

**Source:** Escherichia Coli

**Physical Appearance:** Sterile filtered white lyophilized (freeze-dried) powder.

**Formulation:** Lyophilized from a concentrated (1mg/ml) solution in water containing no additives. The samples of 1µg contain Trehalose 5% (w/vol) for better recovery

**Solubility:** It is recommended to reconstitute the lyophilized rh 4-1BBR in sterile H<sub>2</sub>O not less than 100 µg/ml, which can then be further diluted to other aqueous solutions.

**Stability:** Lyophilized rh 4-1BBR although stable at room temperature for 3 weeks, should be stored desiccated below -18° C. Upon reconstitution rh 4-1BBR should be stored at 4° C between 2-7 days and for future use below -18° C. For long term storage it is recommended to add a carrier protein (0.1% HSA or BSA). Please prevent freeze-thaw cycles.

**Purity:** Greater than 98.0% as determined by:

- (a) Analysis by RP-HPLC.
- (b) Analysis by SDS-PAGE.

**Amino Acid Sequence:** The sequence of the first five N-terminal amino acids was determined and was found to be Met-Glu-Arg-Thr-Arg.

**Biological Activity:** The activity was determined by the inhibition of 4-1BB ligand mediated stimulation of IL-8 production by human PBMC. Results: 90% inhibition using 1µg for both 4-1BB ligand and 4-1BB receptor

This material is offered for research only. Not for use in human. For in vitro use only. ImmunoTools will not be held responsible for patent infringement or other violations that may occur with the use of our products.

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|---------------|-------|--------|----------|
| <i>small</i>  | 5 µg  | Cat.N° | 11344120 |
| <i>medium</i> | 20 µg | Cat.N° | 11344124 |

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