

## Recombinant Human 4-1BBL

**CATALOG #:** 4369-20 20 µg  
4369-100 100 µg  
4369-1000 1 mg

**LOT #:** \_\_\_\_\_

**SOURCE:** *E. coli*

**PURITY:** >98% by SDS-PAGE analyses  
Endotoxin level is <0.1 ng per µg.

**MOL. WEIGHT:** 19.5 kDa

**FORM:** Lyophilized from 5 mM Tris, pH 8.0 + 75 mM NaCl.

### RECONSTITUTION:

We recommend a quick spin followed by reconstitution in water to a concentration of 0.1-1.0 mg/ml. This solution can then be diluted into other aqueous buffers and stored at 4°C for 1 week or -20°C for future use.

### STORAGE CONDITIONS:

The lyophilized protein is best-stored desiccated below 0°C. Reconstituted human 4-1BBL should be stored in working aliquots at -20°C.

### DESCRIPTION:

Human 4-1BB Ligand (4-1BBL) is a member of the emerging family of Ligands with structural homology to tumor necrosis factor. Recombinant human 4-1BBL is a 19.5 kDa protein containing 185 amino acid residues, comprising the TNF-like extra-cellular domain of 4-1BBL.

### BIOLOGICAL ACTIVITY:

Determined by the dose-dependent stimulation of IL-8 production by human PBMC. The ED<sub>50</sub> for the effect is less than 10 ng/ml. Please note: Results may vary with PBMC donors.

**FOR RESEARCH USE ONLY! Not to be used on humans.**

### RELATED PRODUCTS:

#### Apoptosis Detection Kits & Reagents

- Annexin V Kits & Bulk Reagents
- Caspase Assay Kits & Reagents
- Mitochondrial Apoptosis Kits & Reagents
- Nuclear Apoptosis Kits & Reagents
- Apoptosis Inducers and Set
- Apoptosis siRNA Vectors

#### Cell Fractionation System

- Mitochondria/Cytosol Fractionation Kit
- Nuclear/Cytosol Fractionation Kit
- Membrane Protein Extraction Kit
- Cytosol/Particulate Rapid Separation Kit
- Mammalian Cell Extraction Kit
- FractionPREP Fractionation System

#### Cell Proliferation & Senescence

- Quick Cell Proliferation Assay Kit
- Senescence Detection Kit
- High Throughput Apoptosis/Cell Viability Assay Kits
- LDH-Cytotoxicity Assay Kit
- Bioluminescence Cytotoxicity Assay Kit
- Live/Dead Cell Staining Kit

#### Cell Damage & Repair

- HDAC Fluorometric & Colorimetric Assays & Drug Discovery Kits
- HAT Colorimetric Assay Kit & Reagents
- DNA Damage Quantification Kit
- Glutathione & Nitric Oxide Fluorometric & Colorimetric Assay Kits

#### Signal Transduction

- cAMP & cGMP Assay Kits
- Akt & JNK Activity Assay Kits
- Beta-Secretase Activity Assay Kit

#### Adipocyte & Lipid Transfer

- Recombinant Adiponectin, Survivin, & Leptin
- CETP Activity Assay & Drug Discovery Kits
- PLTP Activity Assay & Drug Discovery Kits
- Total Cholesterol Quantification Kit

#### Molecular Biology & Reporter Assays

- siRNA Vectors
- Cloning Insert Quick Screening Kit
- Mitochondrial & Genomic DNA Isolation Kits
- 5 Minutes DNA Ligation Kit
- 20 Minutes Gel Staining/Destaining Kit
- β-Galactosidase Staining Kit & Luciferase Reporter Assay Kit

#### Growth Factors and Cytokines

#### Monoclonal and Polyclonal Antibodies