



# Recombinant Protein Technical Manual

**Recombinant Human 4BB/TNFRSF9 Protein (His Tag)(Active)**  
RPES1720

## Product Data:

**Product SKU:** RPES1720

**Size:** 10µg

**Species:** Human

**Expression host:** Human Cells

**Uniprot:** Q07011

## Protein Information:

**Molecular Mass:** 18.1 kDa

**AP Molecular Mass:** 28-35 kDa

**Tag:** C-6His

**Bio-activity:** Immobilized Human 4BB-His at 10µg/ml(100 µl/well) can bind Human 4BB-Fc(Cat: PKSH032024). The ED50 of Human 4BB-His is 0.4 ug/ml .

**Purity:** > 95 % as determined by reducing SDS-PAGE.

**Endotoxin:** < 1.0 EU per µg as determined by the LAL method.

**Storage:** Lyophilized proteins are stable for up to 12 months when stored at -20 to -80°C. Reconstituted protein solution can be stored at 4-8°C for 2-7 days. Aliquots of reconstituted samples are stable at < -20°C for 3 months.

**Shipping:** This product is provided as lyophilized powder which is shipped with ice packs.

**Formulation:** Lyophilized from a 0.2 µm filtered solution of PBS, pH7.4.

**Reconstitution:** Please refer to the printed manual for detailed information.

**Application:** Functional ELISA

**Synonyms:** CD137; ILA; TNFRSF9; 4BB ligand receptor; CDw137; T-cell antigen 4BB homolog; T-cell antigen ILA

## Immunogen Information:

**Sequence:** Leu24-Gln186

## Background:

Tumor necrosis factor receptor superfamily member 9 (TNFRSF9), also known as CD137 and 4BB, is an inducible T cell surface protein belonging to the tumor necrosis factor receptor superfamily. It is a single-pass type I membrane protein which contains 4 TNFR-Cys repeats. The human and mouse proteins share 60% amino acid sequence identity. CD137 is expressed by mesenchymal cells, including endothelial cells, chondrocytes, and cells of the central nervous system. CD137 is also broadly expressed by cells of the human immune system, is broadly expressed by cells of the human immune system, including activated CD8+ and CD4+ T cells, activated natural killer (NK) cells, follicular dendritic cells (FDCs) and monocytes. CD137 has diverse roles in the immune response, the one key function is to promote the survival of both T cells and dendritic cells by binding the cognate ligand CD137L (4BBL).