



Recombinant Protein Technical Manual

Recombinant Human 4BB/TNFRSF9 Protein (His & Fc Tag)

RPES2781

Product Data:

Product SKU: RPES2781

Size: 100µg

Species: Human

Expression host: HEK293 Cells

Uniprot: NP_001552.2

Protein Information:

Molecular Mass: 45.2 kDa

AP Molecular Mass: 60-65 kDa

Tag: C-His & Fc

Bio-activity:

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 sterile PBS, pH 7.4

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

Application:

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

Immunogen Information:

Sequence: Met 1-Gln 186

Background:

CD137 (also known as 4BB) is a surface co-stimulatory glycoprotein originally described as present on activated T lymphocytes, which belongs to the tumor necrosis factor (TNF) receptor superfamily. It is expressed mainly on activated CD4+ and CD8+ T cells, and binds to a high-affinity ligand (4BBL) expressed on several antigen-presenting cells such as macrophages and activated B cells. Upon ligand binding, 4BB is associated with the tumor necrosis factor receptor-associated factors (TRAFs), the adaptor protein which mediates downstream signaling events including the activation of NF-kappaB and cytokine production. 4BB signaling either by binding to 4BBL or by antibody ligation delivers signals for T-cell activation and growth, as well as monocyte proliferation and B-cell survival, and plays an important role in the amplification of T cell-mediated immune responses. In addition, CD137 and CD137L are expressed in different human primary tumor tissues, suggesting that they may influence the progression of tumors. Crosslinking of CD137 on activated T cells has shown promise in enhancing anti-tumor immune responses in murine models, and agonistic anti-CD137 antibodies are currently being tested in phase I clinical trials.