



Recombinant Protein Technical Manual

**Recombinant Human TNFR1/TNFRSF1A Protein
(HEK293 Cells, His Tag)(Active)**
RPES0309

Product Data:

Product SKU: RPES0309

Size: 50µg

Species: Human

Expression host: HEK293 Cells

Uniprot: NP_001056.1

Protein Information:

Molecular Mass: 22.7 kDa

AP Molecular Mass:

Tag: C-His

Bio-activity: Measured by its binding ability in a functional ELISA. Immobilized human TNFR1-His at 10 µg/mL (100 µl/well) can bind biotinylated human TNFα. The EC50 of biotinylated human TNFα is 52 µg/mL.2. Measured by its ability to inhibit TNFα-mediated cytotoxicity in L929 mouse fibrosarcoma cells in the presence of metabolic inhibitor actinomycin D. The ED50 for this effect is typically 0.2µg/mL in the presence of 0.25 ng/mL recombinant human TNFα.

Purity: > 92 % as determined by reducing SDS-PAGE.

Endotoxin: < 1.0 EU per µg of the protein 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: Functional ELISA

Synonyms: CD120a;FPF;MS5;p55;p55-R;p60;TBP1;TNF-R;TNF-R-I;TNF-R55;TNFAR;TNFR1;TNFR1-d2;TNFR55;TNFR60

Immunogen Information:

Sequence: Met 1-Thr 211

Background:

The cluster of differentiation (CD) system is commonly used as cell markers in immunophenotyping. Different kinds of cells in the immune system can be identified through the surface CD molecules which associate with the immune function of the cell. There are more than 320 CD unique clusters and subclusters have been identified. Some of the CD molecules serve as receptors or ligands important to the cell through initiating a signal cascade which then alter the behavior of the cell. Some CD proteins do not take part in cell signal process but have other functions such as cell adhesion. CD120a (cluster of differentiation 120a), also known as TNFR1 / TNFRSF1A, is a member of CD family, tumor necrosis factor receptor superfamily. CD120a is one of the most primary receptors for the tumor necrosis factor-alpha. It has been shown to be localized to both plasma membrane lipid rafts and the trans golgi complex with the help of the death domain (DD). CD120a can activate the transcription factor NF- κ B, mediate apoptosis, and regulate inflammation processes.