

Recombinant Human TNFRSF1A/TNF-R1/CD120a Protein

Catalog No.: RP01347 **Recombinant**

Sequence Information

Species	Gene ID	Swiss Prot
Human	7132	P19438-1

Tags

C-His

Synonyms

TNFRSF1A;CD120a;FPF;TBP1;TNF-R;TNF-R-I;TNF-R55;TNFAR;TNFR1;TNFR55;TNFR60;p55;p55-R;p60

Product Information

Source	Purification
HEK293 cells	> 95% by SDS-PAGE.

Endotoxin

< 1 EU/μg of the protein by LAL method.

Formulation

Lyophilized from a 0.22 μm filtered solution of PBS, pH 7.4.

Reconstitution

Centrifuge the vial before opening. Reconstitute to a concentration of 0.1-0.5 mg/mL in sterile distilled water. Avoid vortex or vigorously pipetting the protein. For long term storage, it is recommended to add a carrier protein or stabilizer (e.g. 0.1% BSA, 5% HSA, 10% FBS or 5% Trehalose), and aliquot the reconstituted protein solution to minimize free-thaw cycles.

Contact

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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 associating 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-α. 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-κB, mediate apoptosis, and regulate inflammation processes.

Basic Information

Description

Recombinant Human TNFRSF1A/TNF-R1/CD120a Protein is produced by HEK293 cells expression system. The target protein is expressed with sequence (Ile22-Thr211) of human CD120a/TNFRSF1A (Accession #NP_001056.1) fused with 6×His tag at the C-terminus.

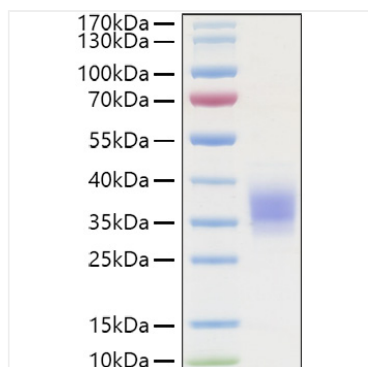
Bio-Activity

1. Measured by its binding ability in a functional ELISA. Immobilized Human TNFRSF1A at 2 μg/mL (100 μL/well) can bind Mouse TNFα with a linear range of 4-135 ng/mL. 2. Measured by its ability to inhibit TNFα-mediated cytotoxicity in the L929 mouse fibrosarcoma cells in the presence of metabolic inhibitor actinomycin D. The ED₅₀ for this effect is typically 22-88 ng/mL in the presence of 0.25 ng/mL recombinant human TNFα.

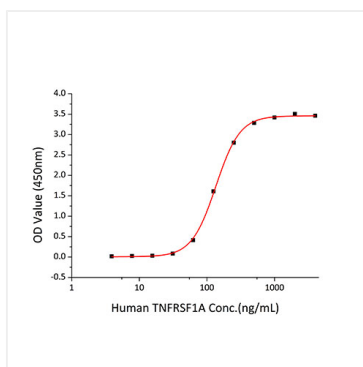
Storage

Store the lyophilized protein at -20°C to -80°C for long term. After reconstitution, the protein solution is stable at -20°C for 3 months, at 2-8°C for up to 1 week. Avoid repeated freeze/thaw cycles.

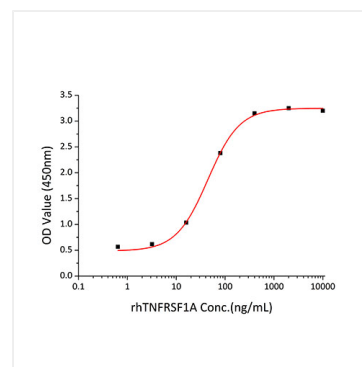
Validation Data



Recombinant Human TNFRSF1A/TNF-R1/CD120a Protein was determined by SDS-PAGE with Coomassie Blue, showing bands at 35-40 kDa.



Immobilized recombinant Human TNFRSF1A at 2 µg/mL (100 µL/well) can bind Mouse TNFα with a linear range of 4-135 ng/mL.



Recombinant Human TNFRSF1A inhibit TNFα-mediated cytotoxicity in the L-929 mouse fibrosarcoma cells in the presence of metabolic inhibitor actinomycin D. The ED₅₀ for this effect is typically 22-88 ng/mL in the presence of 0.25 ng/mL recombinant human TNFα.