# Human TNFR1 / CD120a / TNFRSF1A Protein, Fc Tag (MALS verified)

Catalog # TN1-H5251



### **Synonym**

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

#### Source

Human TNFR1, Fc Tag(TN1-H5251) is expressed from human 293 cells (HEK293). It contains AA Leu 30 - Thr 211 (Accession # P19438). Predicted N-terminus: Leu 30

## **Molecular Characterization**

TNFR1(Leu 30 - Thr 211) Fc(Pro 100 - Lys 330)
P19438 P01857

This protein carries a human IgG1 Fc tag at the C-terminus.

The protein has a calculated MW of 47.9 kDa. The protein migrates as 55-60 kDa when calibrated against <u>Star Ribbon Pre-stained Protein Marker</u> under reducing (R) condition (SDS-PAGE) due to different glycosylation.

#### Endotoxin

Less than 1.0 EU per  $\mu$ g by the LAL method / rFC method.

### **Purity**

>98% as determined by SDS-PAGE.

### **Formulation**

Lyophilized from 0.22 µm filtered solution in

Tris with Glycine, Arginine and NaCl, pH7.5 with trehalose as protectant.

Contact us for customized product form or formulation.

### Reconstitution

Please see Certificate of Analysis for specific instructions.

For best performance, we strongly recommend you to follow the reconstitution protocol provided in the CoA.

### Storage

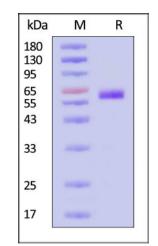
For long term storage, the product should be stored at lyophilized state at -20°C or lower.

Please avoid repeated freeze-thaw cycles.

This product is stable after storage at:

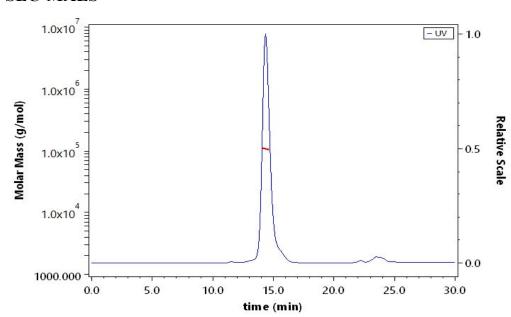
- -20°C to -70°C for 12 months in lyophilized state;
- -70°C for 3 months under sterile conditions after reconstitution.

# **SDS-PAGE**



Human TNFR1, Fc Tag on SDS-PAGE under reducing (R) condition. The gel was stained with Coomassie Blue. The purity of the protein is greater than 98% (With <u>Star Ribbon Pre-stained Protein Marker</u>).

# SEC-MALS



The purity of Human TNFR1, Fc Tag (Cat. No. TN1-H5251) is more than 85% and the molecular weight of this protein is around 100-122 kDa verified by SEC-MALS.

Report

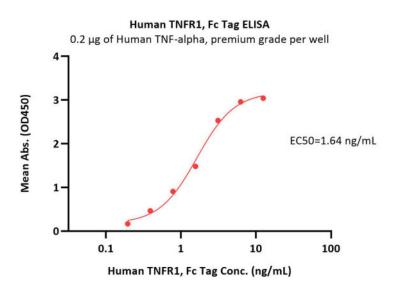
# **Bioactivity-ELISA**



# Human TNFR1 / CD120a / TNFRSF1A Protein, Fc Tag (MALS verified)







Immobilized Human TNF-alpha, premium grade (Cat. No. TNA-H4211) at 2  $\mu$ g/mL (100  $\mu$ L/well) can bind Human TNFR1, Fc Tag (Cat. No. TN1-H5251) with a linear range of 0.2-3 ng/mL (QC tested).

### Background

Tumor necrosis factor receptor 1 (TNF-R1) is also known as Tumor necrosis factor receptor superfamily member 1A (TNFRSF1A), TNFAR, CD antigen CD120a, which belongs to the tumor necrosis factor receptor superfamily. TNF-R1 contains one death domain and four TNFR-Cys repeats. TNF-R1 is the receptor of TNFSF2 / TNF-alpha and homotrimeric TNFSF1 / lymphotoxin - alpha. The adapter molecule FADD recruits caspase-8 to the activated receptor. The resulting death-inducing signaling complex (DISC) performs caspase-8 proteolytic activation which initiates the subsequent cascade of caspases (aspartate-specific cysteine proteases) mediating apoptosis. TNF-R1 contributes to the induction of non - cytocidal TNF effects including anti-viral state and activation of the acid sphingomyelinase. Defects in TNFRSF1A are the cause of familial hibernian fever (FHF).

