# 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 Ile 22 - Thr 211 (Accession # NP_001056).
Predicted N-terminus: Ile 22

## Molecular Characterization

| TNFR1(Ile 22 - Thr 211)<br>NP_001056 | Fc(Pro 100 - Lys 330)<br>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 Star Ribbon Pre-stained Protein Marker under reducing (R) condition (SDS-PAGE) due to different glycosylation.

## Endotoxin

Less than 1.0 EU per μg by the LAL 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

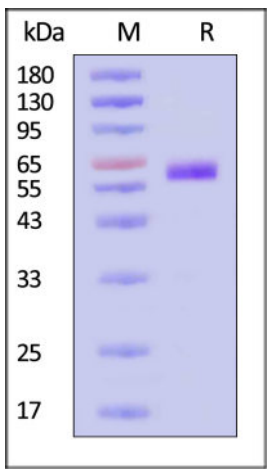
For long term storage, the product should be stored at lyophilized state at -20°C or lower.

***Please avoid repeated freeze-thaw cycles.***

This product is stable after storage at:

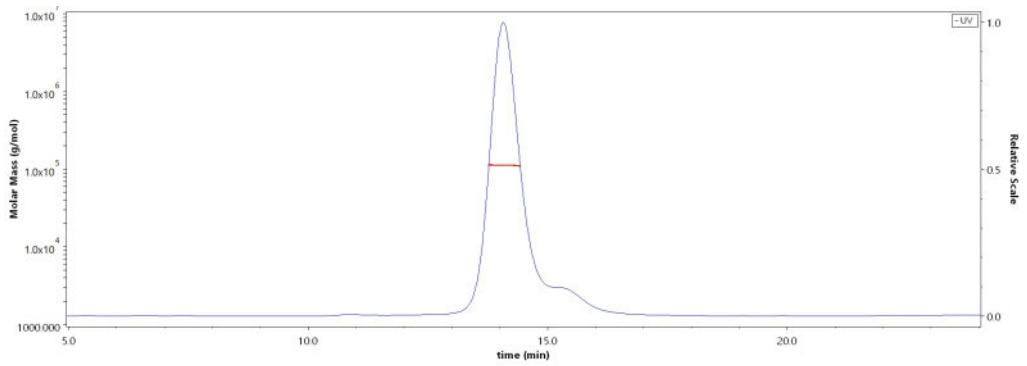
- -20°C to -70°C for 12 months in lyophilized state;
- -70°C for 3 months under sterile conditions after reconstitution.

## SDS-PAGE



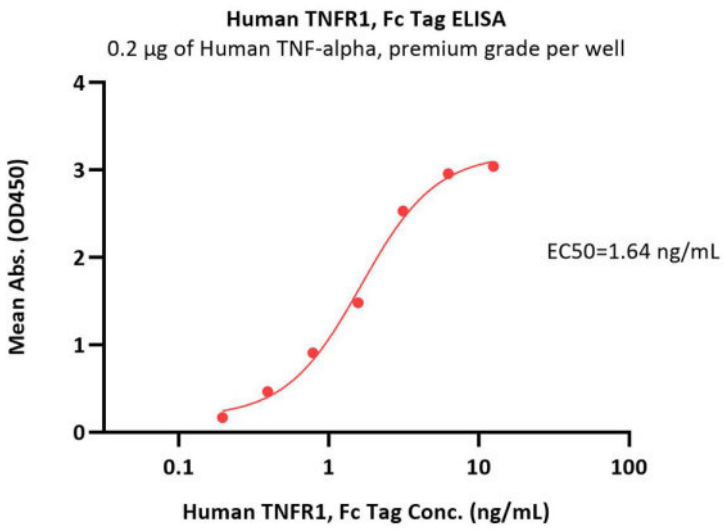

Human TNFR1, Fc Tag on SDS-PAGE under reducing (R) condition. The gel was stained with Coomassie Blue. The purity of the protein is greater than 98% (With Star Ribbon Pre-stained Protein Marker).

## 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




Immobilized Human TNF-alpha, premium grade (Cat. No. TNA-H4211) at 2 μg/mL (100 μL/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).

## Clinical and Translational Updates