Data Sheet (Cat.No.TMPK-00564)

TargetMol

TNFR1/CD120a/TNFRSF1A Protein, Cynomolgus, Recombinant (His)

General Information

Synonyms:	TBP1;TNF-RI;TNFAR;p55;p60;p55-R;TNF-R55;FPF;TNF-R1;TNFR1-d2;MS5;TNFR60
Protein Construction:	Leu30-Thr211
Species:	Cynomolgus
Expression Host:	HEK293 Cells
Accession:	A0A7N9CVF2
Molecular Weight:	21.62 kDa (predicted). Due to glycosylation, the protein migrates to 32-42 kDa based on Tris-Bis PAGE result.

QC Testing

Biological Activity:	1. Immobilized Cynomolgus TNFR1, His Tag at 1μg/ml (100μl/well) on the plate. Dose response curve for Biotinylated Human TNF alpha, His Tag with the EC50 of 17.2ng/ml determined by ELISA. 2. Cynomolgus TNFR1, His Tag immobilized on CM5 Chip can bind Cynomolgus TNF alpha, His Tag with an affinity constant of 0.23 nM as determined in SPR assay.
Purity:	> 95% as determined by Tris-Bis PAGE; > 95% as determined by HPLC
Endotoxin:	< 1.0 EU/μg of the protein as determined by the LAL method.
Formulation:	Lyophilized from a solution filtered through a 0.22 μm filter, containing PBS (pH 7.4). Typically, 8% trehalose is incorporated as a protective agent before lyophilization.

Preparation and Storage

Reconstitution:

Reconstitute the lyophilized protein in distilled water. The product concentration should not be less than 100 μg/ml. Before opening, centrifuge the tube to collect powder at the bottom. After adding the reconstitution buffer, avoid vortexing or pipetting for mixing.

Stability & Storage:

It is recommended to store recombinant proteins at -20°C to -80°C for future use. Lyophilized powders can be stably stored for over 12 months, while liquid products can be stored for 6-12 months at -80°C. For reconstituted protein solutions, the solution can be stored at -20°C to -80°C for at least 3 months. Please avoid multiple freeze-thaw cycles and store products in aliquots.

Actual storage temperature shall be subject to the COA.

Shipping:

In general, lyophilized powders are shipped with blue ice, while solutions are shipped with dry ice.

Protein Background

Tumour necrosis factor alpha (TNF-α) is a pleiotropic cytokine with both injurious and protective functions, which are thought to diverge at the level of its two cell surface receptors, TNFR1 and TNFR2. In the setting of acute injury,

selective inhibition of TNFR1 is predicted to attenuate the cell death and inflammation associated with TNF-α, while sparing or potentiating the protective effects of TNFR2 signalling.

Reference

Proudfoot A, et al. Novel anti-tumour necrosis factor receptor-1 (TNFR1) domain antibody prevents pulmonary inflammation in experimental acute lung injury. Thorax. 2018 Aug;73(8):723-730. doi: 10.1136/thoraxjnl-2017-210305. Epub 2018 Jan 29. PMID: 29382797; PMCID: PMC6204954.