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**Product Data Sheet**


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Product Name: TNFR Human, Sf9

Cat. No.: GP20984

Batch No.: 1

**Product Data**

Purity &gt;98% Source Sf9,Baculovirus cells.

Physical Appearance solid Shipping Condition Shipped with Ice Packs.

Synonyms Tumor Necrosis Factor Receptor Superfamily Member 9;Tumor Necrosis Factor Receptor Superfamily; Member 9; T-Cell Antigen 4-1BBHomolog; 4-1BB Ligand Receptor; T-Cell Antigen ILA; CD137 Antigen; CDw137;CD137; ILA; Interleukin-Activated Receptor; Homolog Of Mouse Ly63;Induced ByLymphocyte Activation (ILA); Homolog Of Mouse 4-1BB; Receptor Protein 4-1BB; TCell Antigen ILA; 4-1BB.

Amino Acid Sequence  
 ADLFERTRSLQDPCSNCPAG TFCDNNRNQi CSPCPPNSFS SAGGQRTCDI  
 CRQCKGVFRT RKECSSTSNA ECDCTPGFHCLGAGCSMCEQ DCKQGQELTK  
 KGCKDCCFGT FNDQKRGICR PWTNCSLDGK SVLVNGTKER  
 DVVCGPSPADLSPGASSVTP PAPAREPGHS PQLEPKSCDK THTCPPCPAP  
 ELLGGPSVFL FPPKPKDTLM ISRTPEVTCVVVDVSHEDPE VKFNWYVDGV  
 EVHNAKTKPR EEQYNSTYRV VSVLTVLHQD WLNGKEYKCK  
 VSNKALPAPIEKTISKAKGQ PREPQVYTL PPSRDELTKNQ VSLTCLVKGF  
 YPSDIAVEWE SNGQPENNYK TTPPVLDSDG SFFLYSKLTVDKSRWQQGNV  
 FSCSVMHEAL HNHYTQKSL SLS LSPGKHHHHH H.

Formulation TNFR protein solution (0.5mg/ml) contains PhosphateBuffered Saline (pH 7.4) and 10% glycerol.

**Introduction**

TNFR1 belongs to the TNF-receptor superfamily. TNFR1 is a receptor for TNFSF2/TNF-alpha and homotrimeric TNFSF1/lymphotoxin-alpha. There are 2 types of soluble TNF receptors: sTNFR-I and sTNFR-II, which act to neutralize the biological activities of TNF alpha and TNF beta. The levels of these soluble receptors seem to increase as a result of shedding of the extracellular domains of the membrane bound receptors. TNF-a, TNFR1 and TNFR2 have roles in cellular differentiation. TNFR1 and TNFR2 function in cell type-

**Caution: Product has not been fully validated for medical applications. For research use only.**

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specific renal injury. TNFR1 is capable of signaling both cell survival and apoptosis. TNFR1-induced apoptosis requires 2 sequential signaling complexes. TNFR1 is capable of activating NF-kappaB, mediate apoptosis, and function as a regulator of inflammation. Oxidative stress promotes TNFR1 and TNFR2 self-interaction, ligand-independent and enhanced ligand-dependent TNF signaling. TNFR1 contributes to the induction of non-cytocidal TNF effects including anti-viral state and activation of the acid sphingomyelinase. Human TNFR1 has a major region which controls cell surface expression. High levels of soluble TNF receptors are found in the amniotic fluid of pregnant women. Germline mutations of the extracellular domains of TNFR1 are linked to the autosomal dominant periodic fever syndrome. The impaired receptor clearance is believed to be a mechanism of the disease. Familial hibernian fever (FHF) is caused by defects in TNFRSF1A gene.

### Stability

Store at 4°C if entire vial will be used within 2-4 weeks. Store, frozen at -20°C for longer periods of time. For long term storage it is recommended to add a carrier protein (0.1% HSA or BSA). Avoid multiple freeze-thaw cycles.

### Background

TNFR produced in Sf9 Baculovirus cells is a single, glycosylated polypeptide chain containing 411 amino acids (18-186 a.a.) and having a molecular mass of 45.3kDa. (Migrates at 40-57kDa on SDS-PAGE under reducing conditions).

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