Tumor Necrosis Factor Receptor Type 1, human recombinant (rHuTNFR1)

Catalog No: 97323
Lot No: XXXXX
Source: *E. coli*
Synonyms: Tumor necrosis factor receptor superfamily member 1A, Tumor necrosis factor receptor 1, Tumor necrosis factor receptor type I, TNF-R1, TNF-RI, TNFR-I, p60, p55, CD120a, TNFRSF1A, TNFAR, TNFR1, FPF, TBP1, TNF-R, p55-R, TNFR55, TNFR60, TNF-R-I, TNF-R55, MGC19588

Background

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-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 ac

Description

Tumor Necrosis Factor Receptor 1 human recombinant produced in *E. coli* is a single, non-glycosylated, polypeptide chain containing 162 amino acids and having a total molecular mass of 18.2 kDa. TNFR1 human recombinant is purified by proprietary chromatographic techniques.

Physical Appearance

Sterile filtered white lyophilized (freeze-dried) powder.

Formulation

The TNFR1 protein was lyophilized from 10 mM sodium phospahe buffer pH 7.5.

Solubility

It is recommended to reconstitute the lyophilized TNFR1 in sterile 18 MΩ-cm H_2O not less than 100 µg/ml, which can then be further diluted to other aqueous solutions.

Stability

Lyophilized TNFR1, although stable at room temperature for 3 weeks, should be stored desiccated below -18?C. Upon reconstitution TNFR1 should be stored at 4?C between 2-7 days and for future use below -18?C. For long term storage it is recommended to add a carrier protein (0.1% HSA or BSA). Please prevent freeze-thaw cycles.

Purity

Greater than 97.0% as determined by (a) Analysis by RP-HPLC, (b) Analysis by SDS-PAGE.

Amino Acid Sequence

MDSVCPQGKY IHPQNNSICC TKCHKGTYLY NDCPGPGQDT DCRECESSGSF TASENHLRHC LSCSKCRKEM GQVEKSSCTV DRDTVCGCRK NQYRHYWSEN LFQCFNCSLC LNGTVHLSCQ EKQNTVCTCHA GFFLRENECV SCSNCKKSLE CTKLCLPQIE N

Usage

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