

Recombinant Human TNFRSF1A, Fc-tagged therapeutic protein(Etanercept)

Cat. No. TNFR-P002H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Dimeric fusion protein consisting of the extracellular ligand-binding portion of the human 75 kilodalton (p75) tumor necrosis factor receptor (TNFR) linked to the Fc portion of human IgG1. The Fc component of the protein contains the CH2 domain, the CH3 domain and hinge region, but not the CH1 domain of IgG1. The therapeutic protein is produced by recombinant DNA technology in a Chinese hamster ovary (CHO) mammalian cell expression system. It consists of 934 amino acids.
Species	Human
Source	CHO
ProteinLength	467 Aa
Description	The protein encoded by this gene is a member of the TNF-receptor superfamily. This protein and TNF-receptor 1 form a heterocomplex that mediates the recruitment of two anti-apoptotic proteins, c-IAP1 and c-IAP2, which possess E3 ubiquitin ligase activity. The function of IAPs in TNF-receptor signalling is unknown, however, c-IAP1 is thought to potentiate TNF-induced apoptosis by the ubiquitination and degradation of TNF-receptor-associated factor 2, which mediates anti-apoptotic signals. Knockout studies in mice also suggest a role of this protein in protecting neurons from apoptosis by stimulating antioxidative pathways. The expression product is the active ingredient of Enbrel and Enbrel Sureclick. The therapeutic protein treats autoimmune diseases by interfering with tumornecrosis factor (TNF; a soluble

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inflammatory cytokine) by acting as a TNF inhibitor. It is a large molecule, with a molecular weight of 150 kDa., that binds to TNF α and decreases its role in disorders involving excess inflammation in humans and other animals, including autoimmune diseases such as ankylosing spondylitis, juvenile rheumatoid arthritis, psoriasis, psoriatic arthritis, rheumatoid arthritis, and, potentially, in a variety of other disorders mediated by excess TNF α .

Molecular Mass	51.2 Kda
AA Sequence	LPAQVAFTPYAPEPGSTCRLREYYDQTAQMCCSKCSPGQHAKVFCTKTSDTVCDSCEDSTYTQLWNWVPEC LSCGSRCSSDQVETQACTREQNRICTRPGWYCALSQKEGCRLCAPLRKCRPGFGVARPGTETSDVVCKPC APGTFSNTTSSTDICRPHQICNVVAIPGNASMDAVCTSTSPTRSMAPGAVHLPQPVSTRSQHTQPTPEPST APSTSFLPMGPPSPAEGSTGDEPKSCDKTHTCPPCPAPELLGGPSVFLFPPKPKDTLMISRTPEVTCVVV DVSHEDPEVKFNWYVDGVEVHNAKTKPREEQYNSTYRVVSVLTVLHQDWLNGKEYKCKVSNKALPAPIEKT ISKAKGQPREPQVYTLPPSREEMTKNQVSLTCLVKGFYPSDIAVEWESNGQPENNYKTTTPVLDSDG SFFLYSKLTVDKSRWQQGNVSCSVMHEALHNHYTQKSLSLSPGK
Endotoxin	< 1.0 EU per μ g of the protein
Purity	>95%
Storage	Can be stored at +4 centigrade short term (1-2 weeks). For long term storage, aliquot and store at -20 centigrade or -70 centigrade. Avoid repeated freezing and thawing cycles.
Alias	TNFRSF1A; FPF; p55; p60; TBP1; TNF-R; p55-R TNFR55; TNF-R-I; TNF-R55; Etanercept; etanercept-szsz; etanercept-ykro; Recombinant human TNF; rhu TNFR:Fc; rhu-TNFR:Fc; TNFR-Immunoadhesin

GENE INFORMATION

Gene Name	TNFRSF1A tumor necrosis factor receptor superfamily, member 1A [Homo sapiens]
Official Symbol	TNFRSF1A
Synonyms	TNFRSF1A; tumor necrosis factor receptor superfamily, member 1A; TNFR1; tumor necrosis factor receptor superfamily member 1A; CD120a; TNF R; TNF R I; TNF R55; TNFAR; TNFR60; TNF-R1; TNF-RI; TNFR-I; tumor necrosis factor-alpha receptor; tumor necrosis factor receptor type 1; tumor necrosis factor binding protein 1; tumor necrosis factor receptor 1A isoform beta; FPF; p55; p60; TBP1; TNF-R; p55-R; TNFR55; TNF-R-I; TNF-R55; MGC19588;
Gene ID	7132
mRNA Refseq	NM_001065
Protein Refseq	NP_001056
MIM	191190
UniProt ID	P19438
Chromosome Location	12p13.2
Pathway	Adipocytokine signaling pathway, organism-specific biosystem; Adipocytokine signaling pathway, conserved biosystem; Alzheimers disease, organism-specific biosystem; Alzheimers disease, conserved biosystem; Amyotrophic lateral sclerosis (ALS), organism-specific biosystem; Amyotrophic lateral sclerosis (ALS), conserved biosystem; Apoptosis, organism-specific biosystem;

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Function

protease binding; protein binding; receptor activity; tumor necrosis factor binding;
tumor necrosis factor-activated receptor activity;

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