

Active Recombinant Human TNFRSF1A, Fc Chimera

Cat. No. TNFRSF1A-152H **Lot. No.** (See product label)

SPECIFICATION

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| Product Overview | Recombinant Humantumor necrosis factor receptor 1 was fused to the Fc region of human IgG1 (aa 93-330). The chimeric protein was expressed in modified <i>human 293 cells</i> . |
| Species | Human |
| Source | HEK293 |
| Description | Tumor necrosis factor alpha (TNF-a ; TNF alpha) and the structurally related lymphotoxin alpha are pro-inflammatory cytokines produced by a variety of immune and non-immune cells in response to multiple stimuli. These stimuli can include bacteria and bacterial products such as LPS, viral infections, T-cell receptor activation and cross-linking of surface immunoglobulin (Ig) on B cells. Expression of TNF-alpha has been detected in macrophages/monocytes, B-cells, T-cells, basophils, eosinophils, glial cells and mast cells. The effects of TNF-a are mediated through the TNF receptors, TNFRI (TNF R1) and TNFRII (TNF R2). TNFRI is a 55 kDa glycoprotein and contains 5 N-linked glycosylation sites. |
| Molecular Mass | TNF RI-Fc Chimera migrates as a band between 50 and 60 kDa in SDS-PAGE due to post-translation modifications, in particular glycosylation. This compares with the unmodified TNF RI-Fc Chimera that has a predicted molecular mass of 48.0kDa. |
| PI | TNF RI-Fc Chimera separates into a number of isoforms with a pI between 6.5 and 8.6 in 2D PAGE due to post-translational modifications, in particular glycosylation. |

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| | This compares with the unmodified TNF RI-Fc Chimera that has a predicted pI of 7.69. |
| % Carbohydrate | TNF RI-Fc Chimera consists of 5-20% carbohydrate by weight. |
| Glycosylation | TNF RI-Fc Chimera has N-linked and possibly O-linked oligosaccharides. |
| Purity | >95%, as determined by SDS-PAGE and visualized by silver stain. |
| Formulation | When reconstituted in 0.5 ml sterile phosphate-buffered saline, the solution will contain 1% human serum albumin (HSA) and 10% trehalose. |
| Reconstitution | It is recommended that 0.5 ml of sterile phosphate-buffered saline be added to the vial. |
| Storage | Lyophilized products should be stored at 2 to 8°C. Following reconstitution short-term storage at 4°C is recommended, and longer-term storage of aliquots at -18 to -20°C. |
| Activity | The ND ₅₀ of TNF RI-Fc Chimera is typically 15-30 ng/ml as measured by its ability to neutralize TNF- α mediated cytotoxicity in murine WEHI 164 cells in the presence of actinomycin D. |

GENE INFORMATION

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| Gene Name | TNFRSF1A tumor necrosis factor receptor superfamily, member 1A [Homo sapiens] |
| Synonyms | tumor necrosis factor receptor superfamily, member 1A; FPF; p55; p60; TBP1; TNF-R; TNFAR; TNFR1; p55-R; CD120a; TNFR55; TNFR60; TNF-R-I; TNF-R55; MGC19588; TNFRSF1A; tumor necrosis factor receptor 1; tumor necrosis factor- α receptor; tumor necrosis factor receptor type 1; tumor necrosis factor binding protein 1; TNF-R1; TNF-RI |

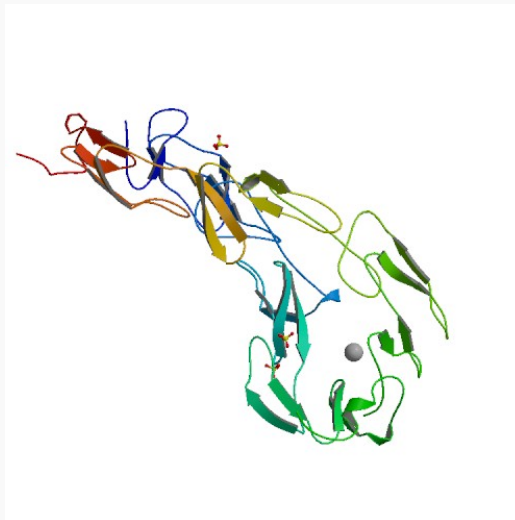
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| Gene ID | 7132 |
| mRNA Refseq | NM_001065 |
| Protein Refseq | NP_001056 |
| MIM | 191190 |
| UniProt ID | P19438 |
| Chromosome Location | 12p13.2 |
| Pathway | Adipocytokine signaling pathway; Alzheimer's disease; Amyotrophic lateral sclerosis (ALS); Apoptosis; Cytokine-cytokine receptor interaction; MAPK signaling pathway; Apoptosis |
| Function | protein complex binding; receptor activity; tumor necrosis factor receptor activity |

PDB rendering based on 1ext.



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