

TNFR2/CD120b/TNFR1B Protein, Human, Recombinant (aa 1-268, M196A, His)

General Information

Synonyms:	TNFR80;p75TNFR;TNF-R-II;CD120b;TNFR1B;TBPII;TNFBR;TNFR2;TNF-R75;p75;tumor necrosis factor receptor superfamily, member 1b
Protein Construction:	A DNA sequence encoding the human TNFRSF1B (EAW71731.1) (Met1-Arg268, natural variant 196 Met/Arg) was expressed with a C-terminal polyhistidine tag. Predicted N terminal: Leu 23
Species:	Human
Expression Host:	HEK293 Cells
Accession:	P20333-2
Molecular Weight:	27.7 kDa (predicted); 43 kDa (reducing condition, due to glycosylation)

QC Testing

Biological Activity:	Measured by its ability to inhibit TNF- α mediated cytotoxicity in L-929 mouse fibrosarcoma cells in the presence of the metabolic inhibitor actinomycin D. The ED50 for this effect is typically 5-40 ng/mL in the presence of 1 ng/mL recombinant human TNF- α .
Purity:	> 95 % as determined by SDS-PAGE
Endotoxin:	< 1.0 EU/ μ g of the protein as determined by the LAL method.
Formulation:	Lyophilized from a solution filtered through a 0.22 μ m filter, containing PBS, pH 7.4. Typically, a mixture containing 5% to 8% trehalose, mannitol, and 0.01% Tween 80 is incorporated as a protective agent before lyophilization.

Preparation and Storage

Reconstitution:

A Certificate of Analysis (CoA) containing reconstitution instructions is included with the products. Please refer to the CoA for detailed information.

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

Tumor necrosis factor receptor superfamily, member 1B (TNFRSF1B), also known as Tumor necrosis factor receptor 2 (TNFR2) or CD120b antigen, is a member of the tumor necrosis factor receptor superfamily.

TNFR2/CD120b/TNFRSF1B 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. Knockout studies in mice also suggest a role of this protein in protecting neurons from apoptosis by stimulating antioxidative pathways. TNFR2/CD120b/TNFRSF1B is not a major contributing factor to the genetic risk of type 2 diabetes, its associated peripheral neuropathy and hypertension and related metabolic traits in North Indians. Tumor necrosis factor receptor superfamily, member 1B (TNFRSF1B) has been reported to be associated with SLE risk in Japanese populations. TNFR2/CD120b/TNFRSF1B serves as a receptor with high affinity for TNFSF2 and approximately 5-fold lower affinity for homotrimeric TNFSF1. This receptor mediates most of the metabolic effects of TNF-alpha. Isoform 2 blocks TNF-alpha-induced apoptosis, which suggests that it regulates TNF-alpha function by antagonizing its biological activity. Cancer Immunotherapy Immune Checkpoint Immunotherapy Targeted Therapy

Reference

Komata T, et al. (1999) Association of tumor necrosis factor receptor 2 (TNFR2) polymorphism with susceptibility to systemic lupus erythematosus. *Tissue Antigens*. 53(6): 527-33.

Tsuchiya N, et al. (2001) Analysis of the association of HLA-DRB1, TNFalpha promoter and TNFR2 (TNFRSF1B) polymorphisms with SLE using transmission disequilibrium test. *Genes Immun*. 2(6): 317-22.

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