

## TL1A/TNFSF15 Protein, Human, Recombinant (rFc)

### General Information

|                       |   |
|-----------------------|---|
| Synonyms:             | VEGI;VEGI192A;TL1;TL1A;tumor necrosis factor (ligand) superfamily, member 15  |
| Protein Construction: | A DNA sequence encoding the human TNFSF15 (NP_005109.2) (Leu72-Leu251) was expressed with the Fc region of rabbit IgG at the N-terminus.. Predicted N terminal: Ser |
| Species:              | Human   |
| Expression Host:      | HEK293 Cells  |
| Accession:            | O95150-1  |
| Molecular Weight:     | 48 kDa (predicted)  |

### QC Testing

|                      |  |
|----------------------|--|
| Biological Activity: | Measured by its ability to induce apoptosis of TF1 human erythroleukemic cells. The ED50 for this effect is typically 20-120 ng/mL.  |
| Purity:              | > 90 % as determined by SDS-PAGE.  |
| Endotoxin:           | < 1.0 EU/μg of the protein as determined by the LAL method.  |
| Formulation:         | Lyophilized from a solution filtered through a 0.22 μm 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

TL1A, also known as TNFSF15, is a cytokine that belongs to the tumor necrosis factor (TNF) ligand family. It is specifically expressed in endothelial cells. TL1A also can be detected in monocytes, placenta, lung, liver, kidney, skeletal muscle, pancreas, spleen, prostate, small intestine and colon. TL1A is a ligand for receptor TNFRSF25 and decoy receptor TNFRSF21/DR6. It mediates activation of NF-kappa-B. It also inhibits vascular endothelial growth and angiogenesis (in vitro). TL1A promotes activation of caspases and apoptosis. It is also found to inhibit

endothelial cell proliferation, and thus may function as an angiogenesis inhibitor.

### Reference

Jin T, et al. (2007) X-ray crystal structure of TNF ligand family member TL1A at 2.1Å. *Biochem Biophys Res Commun.* 364(1):1-6.

Cassatella MA, et al. (2007) Soluble TNF-like cytokine (TL1A) production by immune complexes stimulated monocytes in rheumatoid arthritis. *J Immunol.* 178(11):7325-33.

Prehn JL, et al. (2007) The T cell costimulator TL1A is induced by FcγR signaling in human monocytes and dendritic cells. *J Immunol.* 178(7):4033-8.

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