# **Human LTBR / TNFRSF3 Protein (Fc Tag)**

Catalog Number: 10581-H02H



## **General Information**

#### Gene Name Synonym:

CD18; D12S370; LT-BETA-R; TNF-R-III; TNFCR; TNFR-RP; TNFR2-RP; TNFR3; TNFRSF3

#### **Protein Construction:**

A DNA sequence encoding the human LTBR (NP\_002333.1) (Gln31-Met227) was expressed with the Fc region of human IgG1 at the C-terminus.

Source: Human

Expression Host: HEK293 Cells

**QC** Testing

**Purity:** > 95 % as determined by SDS-PAGE.

**Endotoxin:** 

< 1.0 EU per µg protein as determined by the LAL method.

Stability:

Samples are stable for up to twelve months from date of receipt  $\,$  at -70  $\,$   $^{\circ}$ C

Predicted N terminal: Gln 31

**Molecular Mass:** 

The recombinant human LTBR consists of 429 amino acids and predicts a molecular mass of 47.8 kDa.

#### Formulation:

Lyophilized from sterile PBS, pH 7.4.

Normally 5 % - 8 % trehalose, mannitol and 0.01% Tween80 are added as protectants before lyophilization. Specific concentrations are included in the hardcopy of COA. Please contact us for any concerns or special requirements.

## **Usage Guide**

#### Storage:

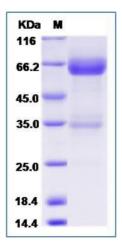
Store it under sterile conditions at -20% to -80% upon receiving. Recommend to aliquot the protein into smaller quantities for optimal storage.

Avoid repeated freeze-thaw cycles.

#### Reconstitution:

Detailed reconstitution instructions are sent along with the products.

#### SDS-PAGE:



## **Protein Description**

LTBR (lymphotoxin beta receptor (TNFR superfamily, member 3)) is a member of the tumor necrosis factor (TNF) family of receptors. Tumor necrosis factor receptor is a trimeric cytokine receptor that binds tumor necrosis factors. The receptor cooperates with an adaptor protein (such as TRADD, TRAF, RIP), which is important in determining the outcome of the response. LTBR is expressed on the surface of most cell types, including cells of epithelial and myeloid lineages, but not on T and B lymphocytes. LTBR specifically binds the lymphotoxin membrane form (a complex of lymphotoxin-alpha and lymphtoxin-beta). LTBR and its ligand play a role in the development and organization of lymphoid tissue and tranformed cells. Activation of this protein can trigger apoptosis. Not only does the LTBR help trigger apoptosis, it can lead to the release of the cytokine interleukin 8. Overexpression of LTBR in HEK293 cells increases IL-8 promoter activity and leads to IL-8 release. It is also essential for development and organization of the secondary lymphoid organs and chemokine release.

### References

1.Summers deLuca L, et al. (2011) A LT $\beta$ R signaling in dendritic cells induces a type I IFN response that is required for optimal clonal expansion of CD8+ T cells. Proc Natl Acad Sci. 108(5):2046-51. 2.Bista P, et al. (2010) TRAF3 controls activation of the canonical and alternative NFkappaB by the lymphotoxin beta receptor. J Biol Chem. 285(17):12971-8. 3.Xu Y, et al. (2011) Adiponectin inhibits lymphotoxin- $\beta$  receptor-mediated NF-κB signaling in human umbilical vein endothelial cells. Biochem Biophys Res Commun. 404(4):1060-4.

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