

# Mouse IL12RB2 / IL12R-beta 2 Protein (His Tag)

Catalog Number: 50099-M08H



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## General Information

### Gene Name Synonym:

A930027118Rik; Ifnm; IL-12RB2

### Protein Construction:

A DNA sequence encoding the mouse IL12RB2 (NP\_032380.1) extracellular domain (Met 1-Asn 637) was fused with a polyhistidine tag at the C-terminus.

**Source:** Mouse

**Expression Host:** HEK293 Cells

## QC Testing

**Purity:** > 97 % as determined by SDS-PAGE

### Bio Activity:

Measured by its ability to bind Mouse IL12A & IL12B Heterodimer Protein (Cat:CT023-M0802H) in a functional ELISA. Immobilized mouse IL12RB2-His at 10 µg/ml (100 µl/well) can bind Mouse IL12A & IL12B Heterodimer Protein (Cat:CT024-M0208H). The EC<sub>50</sub> of Mouse IL12A & IL12B Heterodimer Protein (Cat:CT024-M0208H) is 50.2-117.2 ng/ml.

### Endotoxin:

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

### Stability:

Samples are stable for up to twelve months from date of receipt at -70 °C

**Predicted N terminal:** Asn 24

### Molecular Mass:

The secreted recombinant mouse IL12RB2 consists of 625 amino acids and has a predicted molecular mass of 70 kDa. In SDS-PAGE under reducing conditions, the apparent molecular mass of rmlIL12RB2 is approximately 120-130 kDa due to glycosylation.

### 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:

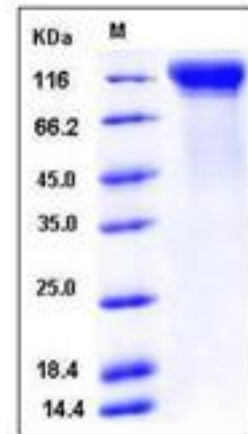
Store it under sterile conditions at -20°C to -80°C upon receiving. Recommend to aliquot the protein into smaller quantities for optimal storage.

Avoid repeated freeze-thaw cycles.

### Reconstitution:

Detailed reconstitution instructions are sent along with the products.

## SDS-PAGE:



## Protein Description

Interleukin-12 receptor subunit beta-2 (IL12RB2), also known as IL-12 receptor subunit beta-2, IL-12R subunit beta-2, IL-12R-beta-2, and IL-12RB2, is a type I transmembrane protein identified as a subunit of the interleukin 12 receptor complex. IL12RB2 belongs to the type I cytokine receptor family. The coexpression of IL12RB2 and IL12RB1 proteins was shown to lead to the formation of high-affinity IL12 binding sites and reconstitution of IL12 dependent signaling. The expression of IL12RB2 is up-regulated by IFN gamma in Th1 cells, and plays a role in Th1 cell differentiation. The up-regulation of IL12RB2 is found to be associated with a number of infectious diseases, such as Crohn's disease and leprosy, which is thought to contribute to the inflammatory response and host defense. This subunit is the signaling component coupling to the JAK2/STAT4 pathway. IL12RB2 promotes the proliferation of T-cells as well as NK cells. IL12RB2 induces the promotion of T-cells towards the Th1 phenotype by strongly enhancing IFN-gamma production.

## References

- 1.Yamamoto K, et al. (1997) Assignment of IL12RB1 and IL12RB2, interleukin-12 receptor beta 1 and beta 2 chains, to human chromosome 19 band p13.1 and chromosome 1 band p31.2, respectively, by in situ hybridization. Cytogenet. 77 (3-4): 257-8.
- 2.Morton SM, et al. (1998) Assignment of IL12RB2 to human chromosome 1p31.3&rarr;p31.2 between D1S230 and D1S198. Cytogenet. Cell Genet. 79 (3-4): 282-3.
- 3.Strausberg RL, et al. (2003) Generation and initial analysis of more than 15,000 full-length human and mouse cDNA sequences. Proc Natl Acad Sci USA. 99 (26): 16899-903.

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