



Recombinant Protein Technical Manual

Recombinant Mouse IL12RB2/IL12R-beta 2 Protein (Fc Tag)

RPES1243

Product Data:

Product SKU: RPES1243

Size: 10µg

Species: Mouse

Expression host: Human Cells

Uniprot: P97378

Protein Information:

Molecular Mass: 98.4 kDa

AP Molecular Mass: 12560 kDa

Tag: C-Fc

Bio-activity:

Purity: > 95 % as determined by SDS-PAGE

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

Storage: Lyophilized proteins are stable for up to 12 months when stored at -20 to -80°C. Reconstituted protein solution can be stored at 4-8°C for 2-7 days. Aliquots of reconstituted samples are stable at < -20°C for 3 months.

Shipping: This product is provided as lyophilized powder which is shipped with ice packs.

Formulation: Lyophilized from a 0.2 µm filtered solution of PBS, pH 7.4.

Reconstitution: Please refer to the printed manual for detailed information.

Application:

Synonyms: IL12RB2; IL2 receptor beta 2; IL2 receptor subunit beta-2; IL2R subunit beta-2; IL2RB2; IL2R-beta-2; interleukin2 receptor beta-2 chain; interleukin2 receptor subunit beta-2

Immunogen Information:

Sequence: Met1-Asn637

Background:

The IL12 receptor complex, formed by IL12RB1 and IL12RB2, mediates the type I immune responses of various types of lymphocytes. Its ligand, IL12, is a heterodimeric cytokine composed of IL2p35 and IL2p40 subunits that are linked via disulfide bonds. Ligation of IL2 to its receptor involves the binding of IL2p35 to IL12RB1 and IL2p40 to IL12RB2. This will result in the activation of tyrosine kinase 2 (TYK2), which is associated with the IL12RB1 chain and Janus kinase 2 (JAK2), which is associated with the IL12RB2 chain. Activated TYK2 and JAK2 direct the phosphorylation of STAT4. IL12RB1 is present on all lymphocytes, while the expression of IL12RB2 is tightly regulated. It has shown that the expression of IL12RB2 is limited to Th2 cells. IL12RB2 subunit plays an important role in Th1 cell differentiation, since its absence leads to an abortive Th1 differentiation that has dysfunctional production of Th1 effector molecules.