Human IL2RG / CD132 Protein (Fc Tag)

Catalog Number: **10555-H02H**

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Biological Solution Specialist

General Information

Gene Name Synonym:

CD132; CIDX; IL-2RG; IMD4; P64; SCIDX; SCIDX1; CD132; gamma(c); gc; [g]c

Protein Construction:

A DNA sequence encoding the human IL2RG (P31785) (Met1-Asn254) was expressed, fused with the Fc region of human IgG1 at the C-terminus.

Source: Human

Expression Host: Human Cells

QC Testing

Purity: > 99 % as determined by SDS-PAGE

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 ℃

Predicted N terminal: Leu 23

Molecular Mass:

The recombinant human IL2RG/Fc is a disulfide-linked homodimer. The reduced monomer comprises 473 amino acids and has a predicted molecular mass of 54.4 kDa. The apparent molecular mass of the protein is approximately 71 kDa in SDS-PAGE under reducing conditions.

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:

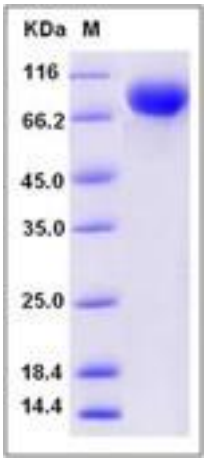
Store it under sterile conditions at -20℃ to -80℃ upon receiving. Recommend to aliquot the protein into smaller quantities for optimal storage.

Avoid repeated freeze-thaw cycles.

Reconstitution:

Detailed reconstitution instructions are sent along with the products.

SDS-PAGE:



Protein Description

The common gamma chain (γc) (or CD132), also known as interleukin-2 receptor subunit gamma or IL2RG, is a member of the type I cytokine receptor family expressed on most lymphocyte (white blood cell) populations, and its gene is found on the X-chromosome of mammals. The common gamma chain (γc) (or IL2RG), is a cytokine receptor sub-unit that is common to the receptor complexes for at least six different interleukin receptors: IL-2, IL-4, IL-7, IL-9, IL-15 and interleukin-21 receptor. It is a component of multiple cytokine receptors that are essential for lymphocyte development and function. X-linked severe combined immunodeficiency (XSCID) is a rare and potentially fatal disease caused by mutations of IL2RG, the gene encoding IL2RG. IL2RG was demonstrated to be a component of the IL-4 receptor on the basis of chemical cross-linking data, the ability of IL2RG to augment IL-4 binding affinity. The observation that IL-2R gamma is a functional component of the IL-4 receptor, together with the finding that IL-2R gamma associates with the IL-7 receptor, begins to elucidate why deficiency of this common gamma chain (gamma c) has a profound effect on lymphoid function and development, as seen in X-linked severe combined immunodeficiency.

References

1.Russell SM, *et al.* (1993) Interleukin-2 receptor gamma chain: a functional component of the interleukin-4 receptor. Science. 262 (5141): 1880-3.
2.Miyazaki T, *et al.* (1994) Functional activation of Jak1 and Jak3 by selective association with IL-2 receptor subunits. Science. 266 (5187): 1045-7.
3.Takeshita T, *et al.* (1992) Cloning of the gamma chain of the human IL-2 receptor. Science. 257 (5068): 379-82.