

Human CD122 / IL-2RB Protein (ECD, Fc Tag)



Sino Biological
Biological Solution Specialist

Catalog Number: 10696-H02H

General Information

Gene Name Synonym:

CD122; IL-15RB; IL15RB; P70-75

Protein Construction:

A DNA sequence encoding the extracellular domain (Met1-Asp239) of human IL2RB (NP_000869.1) was expressed with the C-terminal Fc region of human IgG1.

Source: Human

Expression Host: HEK293 Cells

QC Testing

Purity: > 90 % as determined by SDS-PAGE

Bio Activity:

1. Loaded CD122 / IL2RB Protein, Human, Recombinant (Fc Tag)(Cat. 10696-H02H) on Pro A Biosensor, can bind IL2, Human, Mutant with an affinity constant of was 0.3 μ M as determined by Octet RED System.
2. Measured by its ability to inhibit the IL-15-dependent proliferation of MO7e human megakaryocytic leukemic cells in the presence of 4.0 ng/mL of recombinant human IL-15. The ED₅₀ for this effect is 1.0-3.8 μ g/mL.

Endotoxin:

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

Predicted N terminal: Ala 27

Molecular Mass:

The recombinant human IL2 R β /Fc is a disulfide-linked homodimeric protein generated after removal of the signal peptide. The reduced monomer consists of 451 amino acids and has a predicted molecular mass of 51.3 kDa. As a result of glycosylation, the apparent molecular mass of rh IL2RB/Fc monomer is approximately 60-65 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

Stability & Storage:

Samples are stable for twelve months from date of receipt at -20°C to -80°C.

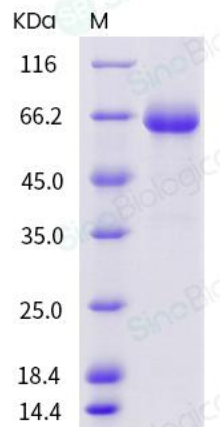
Store it under sterile conditions at -20°C to -80°C upon receiving. Recommend to aliquot the protein into smaller quantities for optimal storage.

Avoid repeated freeze-thaw cycles.

Reconstitution:

Detailed reconstitution instructions are sent along with the products.

SDS-PAGE:



Protein Description

Interleukin-2 receptor (IL-2R) also known as High affinity IL-2 receptor subunit beta, IL-2 receptor subunit beta, and IL-2RB, is involved in T cell-mediated immune responses. CD122/IL-2RB is present in 3 forms with respect to ability to bind interleukin 2. The low affinity form is a monomer of the alpha subunit and is not involved in signal transduction. The intermediate affinity form consists of an alpha/beta subunit heterodimer, while the high affinity form consists of an alpha/beta/gamma subunit heterotrimer. Both the intermediate and high affinity forms of CD122/IL-2RB are involved in receptor-mediated endocytosis and transduction of mitogenic signals from interleukin 2. CD122/IL-2RB expression was restricted to the earliest B22+ cells (CD43+CD24-; prepro B cells; fraction A) that proliferate vigorously to IL-2 in the absence of any stromal cells, but not to IL-15. The high-affinity form of this receptor is expressed on activated T lymphocytes, activated B lymphocytes, and activated macrophages. CD122/IL-2RB plays a role in regulating normal lymphocyte development.

References

1. Foss F. (2006) Clinical experience with denileukin diftitox (ONTAK). Semin Oncol. 33(1 Suppl 3): 11-6.
2. Sprent J, et al. (2001) T cell death and memory. Science. 293(5528): 245-8.
3. Teshigawara K, et al. (1987) Interleukin 2 high-affinity receptor expression requires two distinct binding proteins. J Exp Med. 165 (1): 223-38.

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Tel: +86-400-890-9989 (Global), +1-215-583-7898 (USA), +49(0)6196 9678656 (Europe)

Website: <http://www.sinobiological.com>