Canine IL2RB / IL2 Receptor beta Protein (Fc Tag)

Catalog Number: 70082-D02H

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Biological Solution Specialist

General Information

Gene Name Synonym:

CD122; IL15RB; P70-75; CD122; IL-15Rbeta; Il-2/15Rbeta; Il-2Rbeta; IL15Rbeta; p70

Protein Construction:

A DNA sequence encoding the extracellular domain of the canine IL2RB (XP_003431552.1) (Met1-Pro244) was expressed with the Fc region of human IgG1 at the C-terminus.

Source: Canine

Expression Host: Human Cells

QC Testing

Purity: > 80 % 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: Ser 25

Molecular Mass:

The recombinant canine IL2RB/Fc is a disulfide-linked homodimer. The reduced monomer comprises 461 amino acids and has a predicted molecular mass of 52.3 kDa. The apparent molecular mass of the protein is approximately 67 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:

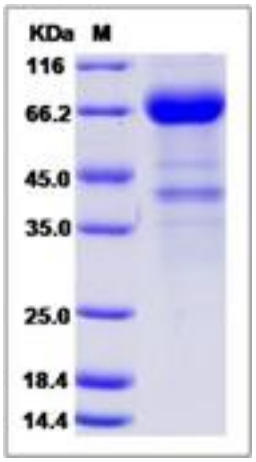
Store it under sterile conditions at -20℃ to -80℃ upon receiving. Recommend to aliquot the protein into smaller quantities for optimal storage.

Avoid repeated freeze-thaw cycles.

Reconstitution:

Detailed reconstitution instructions are sent along with the products.

SDS-PAGE:



Protein Description

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 B220+ 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.