Human IL4R / CD124 Protein (His Tag)

Catalog Number: 10402-H08H

General Information

Gene Name Synonym:

CD124; IL-4RA; IL4R; IL4RA

Protein Construction:

A DNA sequence encoding the human IL4R (NP_000409.1) precursor (Met 1-His 232) was fused with a polyhistidine tag at the C-terminus.

Source: Human

Expression Host: HEK293 Cells

QC Testing

Purity: ≥ 98 % as determined by SDS-PAGE. ≥ 95 % as determined by SEC-HPLC.

Bio Activity:

1.Immobilized Recombinant Human IL4R / CD124 Protein (His Tag) (Cat: 10402-H08H) at 2 μg/mL (100 μL/well) can bind Recombinant Human IL4 / Interleukin-4 Protein, Biotinylated (Cat: 11846-HNAE-B), the EC50 is 14-45 ng/mL.
2.Measured by its ability to inhibit IL-4-induced proliferation of TF-1 human erythroleukemic cells. The ED50 for this effect is typically 5-25 ng/ml in the presence of 0.2 ng/mL of Recombinant human IL-4.

Endotoxin:

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

Predicted N terminal: Met 26

Molecular Mass:

The secreted recombinant human IL4R consists of 218 amino acids after cleavage of the signal peptide and predictes a molecular mass of 25.18 kDa. In SDS-PAGE under reducing conditions, it migrates with the apparent molecular mass of 43-48 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

Stability & Storage:
Samples are stable for twelve months from date of receipt at -20℃ to -80℃.

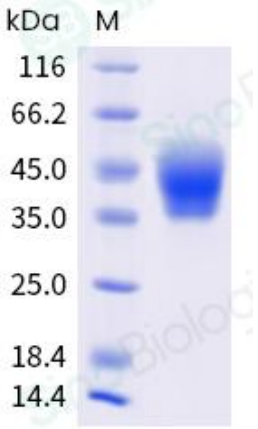
Store it under sterile conditions at -20℃ to -80℃ upon receiving. Recommend to aliquot the protein into smaller quantities for optimal storage.

Avoid repeated freeze-thaw cycles.

Reconstitution:

Detailed reconstitution instructions are sent along with the products.

SDS-PAGE:



Protein Description

The cluster of differentiation (CD) system is commonly used as cell markers in Immunophenotyping. Different kinds of cells in the immune system can be identified through the surface CD molecules associating with the immune function of the cell. There are more than 320 CD unique clusters and subclusters have been identified. Some of the CD molecules serve as receptors or ligands important to the cell through initiating a signal cascade which then alters the behavior of the cell. Some CD proteins do not take part in the cell signal process but have other functions such as cell adhesion. CD124, also known as the interleukin 4 receptor (IL4R), is a type Ⅰ transmembrane protein that can regulate IgE antibody production in B cells through binding to interleukin 4 and interleukin 13 and promote differentiation of Th2 cells through binding to interleukin 4. The membrane-bound form of CD124 can be hydrolyzed to a soluble form which can inhibit IL4-mediated cell proliferation and IL5 upregulation by T-cells.

References

1.Zola H, *et al.* (2007) CD molecules 2006-human cell differentiation molecules. J Immunol Methods. 318 (1-2): 1-5. 2.Ho IC, *et al.* (2009) GATA3 and the T-cell lineage: essential functions before and after T-helper-2-cell differentiation. Nat Rev Immunol. 9 (2): 125-35. 3.Matesanz-Isabel J, *et al.* (2011) New B-cell CD molecules. Immunology Letters.134 (2): 104-12.