Human IL-4 R alpha / CD124 Protein, His Tag (MALS verified)

Catalog # ILR-H5221

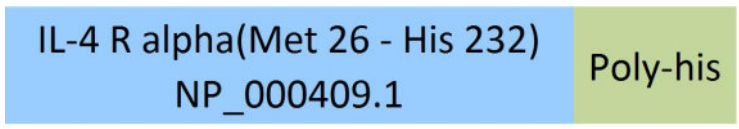
Synonym

IL4R,CD124,IL4RA

Source

Human IL-4 R alpha, His Tag(ILR-H5221) is expressed from human 293 cells (HEK293). It contains AA Met 26 - His 232 (Accession # NP_000409.1). Predicted N-terminus: Met 26

Molecular Characterization



This protein carries a polyhistidine tag at the C-terminus.

The protein has a calculated MW of 24.6 kDa. The protein migrates as 36-50 kDa when calibrated against Star Ribbon Pre-stained Protein Marker under reducing (R) condition (SDS-PAGE) due to glycosylation.

Endotoxin

Less than 1.0 EU per μg by the LAL method.

Purity

>95% as determined by SDS-PAGE.

Formulation

Lyophilized from 0.22 μm filtered solution in PBS, pH7.4 with trehalose as protectant.

Contact us for customized product form or formulation.

Reconstitution

Please see Certificate of Analysis for specific instructions.

For best performance, we strongly recommend you to follow the reconstitution protocol provided in the CoA.

Storage

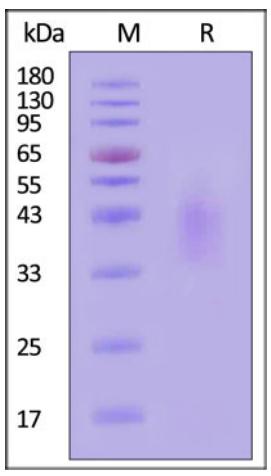
For long term storage, the product should be stored at lyophilized state at -20°C or lower.

Please avoid repeated freeze-thaw cycles.

This product is stable after storage at:

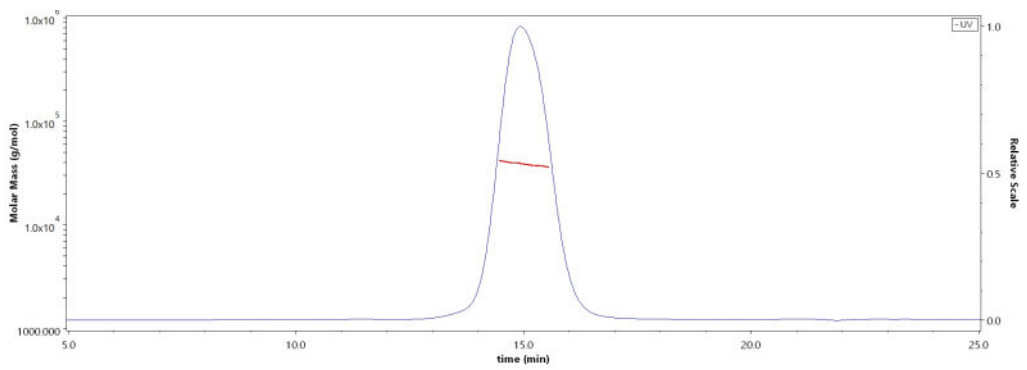
- -20°C to -70°C for 12 months in lyophilized state;
- -70°C for 3 months under sterile conditions after reconstitution.

SDS-PAGE



Human IL-4 R alpha, His Tag on SDS-PAGE under reducing (R) condition. The gel was stained with Coomassie Blue. The purity of the protein is greater than 95% (With Star Ribbon Pre-stained Protein Marker).

SEC-MALS

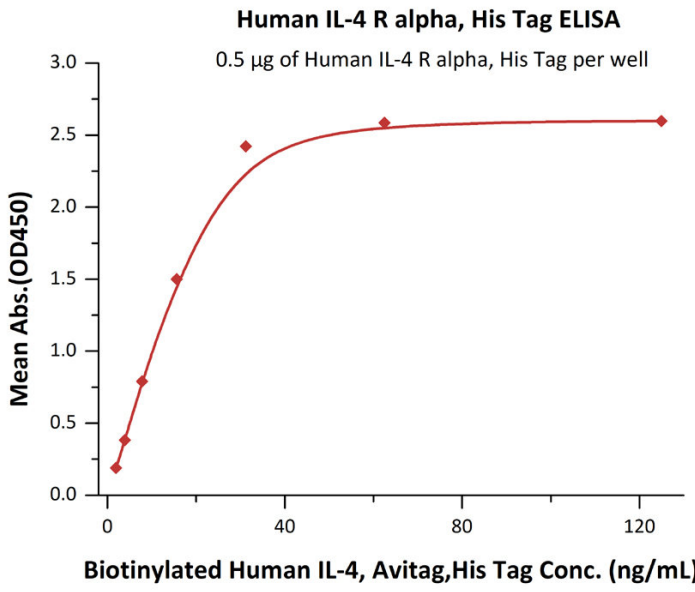


The purity of Human IL-4 R alpha, His Tag (Cat. No. ILR-H5221) is more than 85% and the molecular weight of this protein is around 32-48 kDa verified by SEC-MALS.
Report

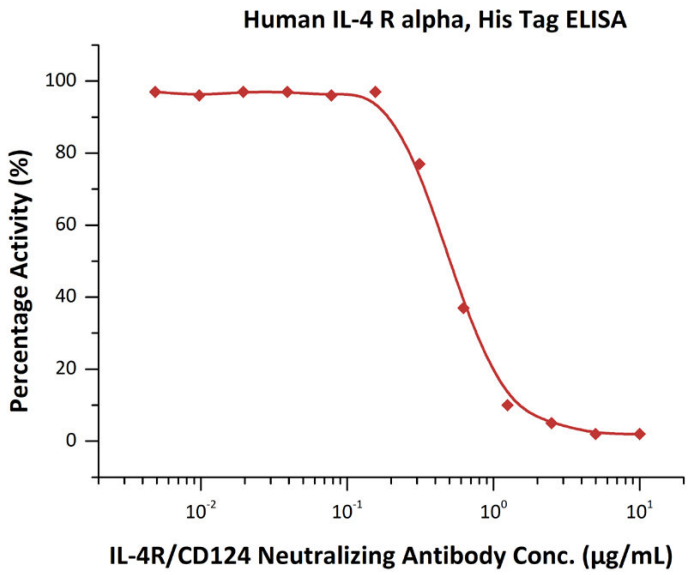
Bioactivity-ELISA

Human IL-4 R alpha / CD124 Protein, His Tag (MALS verified)

Catalog # ILR-H5221



Immobilized Human IL-4 R alpha, His Tag (Cat. No. ILR-H5221) at 5μg/mL (100 μL/well) can bind Biotinylated Human IL-4, Avitag,His Tag (Cat. No. IL4-H82E0) with a linear range of 2-16 ng/mL (QC tested).



Serial dilutions of Monoclonal IL-4R/CD124 Neutralizing Antibody were added into Human IL-4 R alpha, His Tag (Cat. No. ILR-H5221): Biotinylated Human IL-4, Avitag,His Tag (Cat. No. IL4-H82E0) binding reactions. The half maximal inhibitory concentration (IC50) is 0.505 μg/mL (Routinely tested).

Background

IL-4 is a pleiotropic cytokine produced by activated Th2 cells and mast cells, and plays a pivotal role in immune responses. The effects of IL-4 are mediated after binding to high affinity receptor complexes present on hematopoietic as well as non-hematopoietic cells. Hematopoietic cellular responses to IL-4 are mediated by a high affinity receptor complex comprised of the 140 kDa IL4Rα (CD124)subunit and the 70 kDa common cytokine γc chain (CD132).
Interleukin 4 Receptor (IL4R) also known as CD124, IL4Rα and BSF receptor, is a type I cytokine receptor produced by activated Th2 cells and mast cells, and plays an important role in Th2-biased immune responses, alternative macrophage activation, mucosal immunity, allergic inflammation, tumor progression, and atherogenesis. A soluble form of the encoded IL4R protein can be produced by an alternate splice variant or by proteolysis of the membrane-bound protein, and this soluble form can inhibit IL4-mediated cell proliferation and IL5 upregulation by T-cells. IL4R can alternatively associate with IL-13Ra1 to form the type II receptor which is responsive to both IL4 and IL13. Interleukin-4 receptor has been shown to interact with SHC1.

Clinical and Translational Updates

Please contact us via TechSupport@acrobiosystems.com if you have any question on this product.