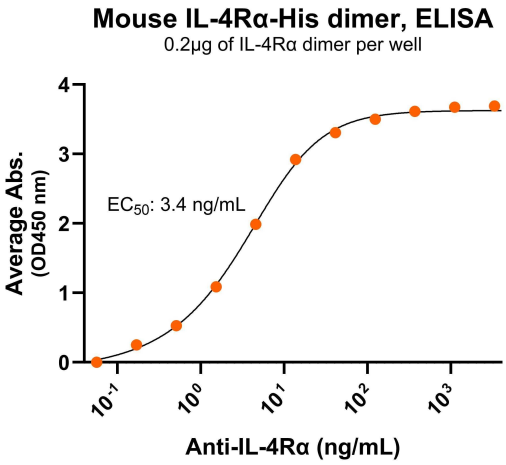
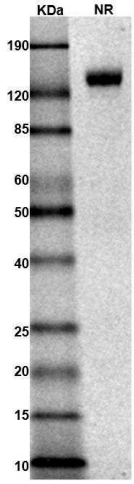
Bioactivity – Antibody Binding



Immobilized mouse IL-4Rα protein dimer, His tag (Cat. No. CSP-25220-01) can bind anti-mouse IL-4Rα polyclonal antibody with half maximal effective concentration (EC50) range of 1.7-6.9 ng/mL (QC tested).

SDS-PAGE



MW: Molecular Weight marker reduced condition
NR: IL-4Rα dimer under non-reduced condition

The migration range of the heterodimer protein with glycosylation under non-reducing condition is between 120 and 190 kDa on SDS PAGE.

Mouse IL-4Rα Protein Dimer, His Tag
Product Code: CSP-25220-01
For Research Use Only (RUO)

Expression Host
HEK293T

Protein Name
IL4Ra

Purity
Greater than 90% dimer form as determined by SDS-PAGE under non-reducing condition

Alternate Name(s)
IL4R, cluster of differentiation 124, CD124, IL-4RA, IL4RA, Interleukin-4 receptor

Protein Construct
IL-4Rα dimer protein contains an IL-4Rα extracellular domain (UniProt# P16382) fused with a proprietary cis-dimer motif followed by a His tag at the C-terminus. Expressed in HEK293T cell line.

Amino Acid Range
AA: I26-R233

SDS-Page Molecular Weight
65 kDa. The migration range of the heterodimer protein with glycosylation under non-reducing condition is between 120 and 190 kDa on SDS PAGE.

Formulation
0.22μm filtered PBS, pH 7.4

Shipping Conditions
Frozen Dry Ice

Stability & Storage
-80^{0}C

Background

Interleukin 4 receptor alpha (IL-4Rα) is a Type I transmembrane and a Type 1 cytokine receptor. IL-4Rα is also known as cluster of differentiation 124 (CD124). IL-4Rα is a key component in interleukin 4 (IL-4) and IL-13 cytokine signaling involved in immune regulation, particularly in Th2 immune responses, allergy, and asthma. IL-4Rα contains an extracellular domain with an overall L shape organized in two covalently linked domains: an h-type immunoglobulin fold (D1) and a standard fibronectin type III (FN III)–like topology (D2). IL-4Rα can bind IL-4 and IL-13 and allergic inflammation is largely driven by IL-4 and IL-13 signaling through IL-4Rα, making IL-4Rα a promising therapeutic target for allergic diseases. While structurally and functionally similar to human IL-4Rα homodimer, mouse IL-4Rα homodimer is a species-specific tool essential for preclinical studies, basic research, and translational research.