

# Produktinformation



Forschungsprodukte & Biochemikalien



Zellkultur & Verbrauchsmaterial



Diagnostik & molekulare Diagnostik



Laborgeräte & Service

Weitere Information auf den folgenden Seiten! See the following pages for more information!



## Lieferung & Zahlungsart

siehe unsere Liefer- und Versandbedingungen

## Zuschläge

- Mindermengenzuschlag
- Trockeneiszuschlag
- Gefahrgutzuschlag
- Expressversand

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## IL-4Ra (CD124), Fc-Fusion (lgG1), Avi-Tag, Biotin-Labeled Recombinant

Catalog: 102468 Lot: 250311

**Product Information** 

**Description:** Recombinant IL-4Ra (interleukin-4 receptor subunit alpha), transcript variant 1, also

known as CD124, encompassing amino acids 26-232. This construct contains the Fc domain of human IgG1 fused to the C-terminus, followed by a C-terminal Avi-Tag $^{\text{TM}}$ . The recombinant protein was enzymatically biotinylated using the Avi-Tag $^{\text{TM}}$  and affinity

purified.

**Background:** Interleukin-4 is produced mainly by a subpopulation of activated T cells (Th2) that are

the biologically most active helper cells for B cells and that also secrete IL-5 and IL-6. The biological activities of IL-4 are mediated by a specific receptor. The extracellular domain of the IL-4 receptor is related to the receptors for EPO (erythropoietin), IL-6, and the beta chain of the IL-2 receptor (CD122). There are two types of receptors for IL-4. Type 1 receptor is a heterodimer consisting of IL-4Ralpha (IL4-R $\alpha$ ) and IL-4Rgamma (IL-4R $\gamma$ c), mostly present on hematopoietic cells. The type 2 receptor is a heterodimer consisting of IL-4Ralpha and IL-13Ralpha1 (II-13R $\alpha$ 1). IL-4 enhances expression of MHC (major histocompatibility class) 2 antigens on B cells. It can promote their capacity to respond to other B cell stimuli and to present antigens for T cells. Pretreatment of macrophages with IL-4 prevents the production of IL-1, TNF $\alpha$  (tumor necrosis factor alpha) and prostaglandins in response to activation of the cells by bacterial endotoxins or IFN-y (interferon gamma). IL-4 plays crucial roles in inflammation, fibrosis, allergic reactions, and cancer. The therapeutic exploitation of IL-4 signaling pathways can result

in advances in the treatment of auto-immune disorders.

Species: Human

Construct: IL-4Ra (26-232-Fc(lgG1)-Avi)-(Biotin)

Concentration: 1.86 mg/ml
Expression System: HEK293
Purity: ≥90%

**Format:** Aqueous buffer solution.

Formulated In: 8 mM phosphate, pH 7.4, 110 mM NaCl, 2.2 mM KCl, and 20% glycerol

MW: 53 kDa + glycans

**Glycosylation:** This protein runs at a higher MW by SDS-PAGE due to glycosylation.

Label: This protein is enzymatically biotinylated using Avi-Tag™ technology. Biotinylation

confirmed to be ≥90%.

Genbank Accession: NM 000418.4

**Stability:** At least 6 months at -80°C.

Storage: -80°C

Instructions for Use: Thaw on ice and gently mix prior to use. DO NOT VORTEX. Perform a quick spin before

opening. Aliquot into small volumes and flash freeze for long term storage. Avoid

multiple freeze/thaw cycles.

Assay Conditions: A white 96-well plate was precoated with IL-4, His-Avi-Tag Recombinant (#102538) (100

ng/well). Blocking Buffer 2 (#79728) and PBST were used for blocking and washing steps, respectively. For protein titration a serial dilution of IL-4Ra (CD124), Fc-Fusion (lgG1), Avi-Tag, Biotin-Labeled Recombinant (#102468) at the highest concentration of 10 ng/ $\mu$ l (250 ng/reaction) was prepared in 1x PP-02 Assay Buffer. Diluted IL-4Ra was then added to the wells and incubated at Room Temperature (RT) for 1 hour. The plate was then washed again and incubated with Streptavidin-HRP conjugate diluted 1:1000 in Blocking Buffer 2 for 1 hour at RT. After the final wash, ELISA ECL substrate mix

(#79670) was added to each well and chemiluminescence was read.

**Applications:** Useful for binding assays.

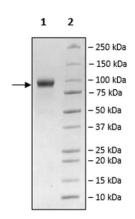


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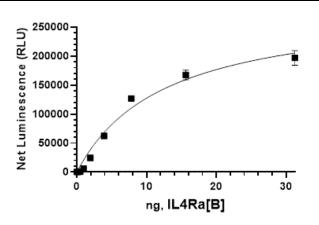
Catalog: 102468 Lot: 250311

**Quality Control Data** 

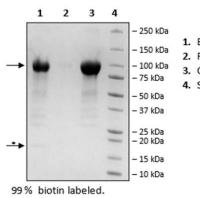




### IL-4: IL-4Ra[B] Binding Activity



### Biotin-Avidin Pulldown



- Beads
- 2. Flow Thru
- 3. Control
- 4. Standards

\* Avidin from beads.

