



# SZABO SCANDIC

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## Produktinformation



Forschungsprodukte & Biochemikalien



Zellkultur & Verbrauchsmaterial



Diagnostik & molekulare Diagnostik



Laborgeräte & Service

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### Lieferung & Zahlungsart

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### Zuschläge

- Mindermengenzuschlag
- Trockeneiszuschlag
- Gefahrgutzuschlag
- Expressversand

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# CD125 (IL-5Ra), N-Terminal Avi-Tag, Fc-Fusion (IgG1), Biotin-Labeled Recombinant

Catalog: 102646  
Lot: 250318-G

## Product Information

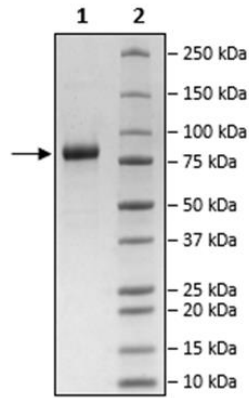
<b>Description:</b>	Recombinant CD125, or IL-5Ra (Interleukin 5 receptor subunit alpha), transcript variant 1, encompassing amino acids 21-342. The protein is fused at the N-terminus with an Avi-Tag™ followed by the Fc fragment of a human IgG1. The recombinant protein was enzymatically biotinylated using the Avi-Tag™ and affinity purified.
<b>Background:</b>	IL-5 (interleukin-5) is a pro-inflammatory protein that functions as an intermediary cytokine in the T <sub>H</sub> 2 (T helper 2) cells response in asthma and other eosinophilic allergic diseases. IL-5 functions by promoting eosinophil maturation, activation, and migration into target tissues. It binds to the IL-5 specific cell surface receptor IL-5Ra (IL-5 receptor alpha) and further recruits the common beta chain receptor (CSF2RB) to initiate downstream signaling through JAK1/2 (Janus kinase 1/2) and STAT5. Activated eosinophils contribute to airway damage through degranulation, resulting in the release of pro-inflammatory cytokines and enzymatic mediators contributing to local inflammation and tissue damage. IL-5 signaling plays a critical role in allergic and eosinophilic asthma subtypes and has been an active area for drug discovery. Antibodies targeting both IL-5 ligand and CD125 have been FDA (Food and Drug Administration) approved for the treatment of severe eosinophilic asthma and other eosinophilic conditions. These antibodies function by neutralizing IL-5-mediated signaling in eosinophils. Additionally, IL-5Ra targeting antibodies and CAR (chimeric antigen receptor)-T cells can induce immune-mediated cytotoxicity of IL-5Ra-expressing cells, including eosinophils through ADCC (antibody-dependent cellular cytotoxicity) and CAR-T cell mediated killing respectively.
<b>Species:</b>	Human
<b>Construct:</b>	CD125 (Avi-Fc(IgG1)-21-342(end))-(Biotin)
<b>Concentration:</b>	0.48 mg/ml
<b>Expression System:</b>	HEK293
<b>Purity:</b>	≥90%
<b>Format:</b>	Aqueous buffer solution.
<b>Formulated In:</b>	8 mM phosphate pH 7.4, 110 mM NaCl, 2.2 mM KCl, and 20% glycerol.
<b>MW:</b>	65 kDa + glycans
<b>Glycosylation:</b>	This protein runs at a higher MW by SDS-PAGE due to glycosylation.
<b>Label:</b>	This protein is enzymatically biotinylated using Avi-Tag™ technology. Biotinylation confirmed to be ≥90%.
<b>Genbank Accession:</b>	NM_00564.5
<b>Stability:</b>	At least 6 months at -80°C.
<b>Storage:</b>	-80°C
<b>Instructions for Use:</b>	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.
<b>Assay Conditions:</b>	A 96-well plate was coated with IL-5, His-Avi-Tag Recombinant (100 ng/well in PBS) at 4°C overnight. The plate was washed three times with PBST, and 200 µl Blocking Buffer 2 was added for 2 hours at room temperature (RT). After three washes with PBST, a 1:2 serial dilution of CD125 protein prepared in PP-02 Assay Buffer (BPS Bioscience #82620), was added and the plate was incubated at RT for 1 hour. The plate was washed three times and incubated with Streptavidin-HRP (#79742) diluted 1:1000 in Blocking Buffer 2 for 1 hour at RT. After three washes, 100 µl of the ELISA ECL Substrate (BPS Bioscience #79670) was added to each well and chemiluminescence was measured.
<b>Applications:</b>	Useful for binding and avidin pulldown assays.

# CD125 (IL-5Ra), N-Terminal Avi-Tag, Fc-Fusion (IgG1), Biotin-Labeled Recombinant

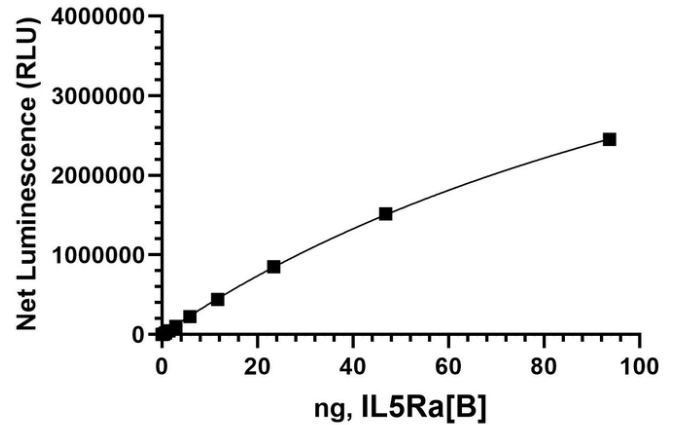
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## Quality Control Data

### 4-20% SDS-PAGE Coomassie Staining



### IL-5:CD125 Binding Activity



### Biotin-Avidin Pulldown

