

**IL-5RA**  
Catalog # PVGS1664**Specification**

---

**IL-5RA - Product Information**

Primary Accession [O01344](#)  
**Species**  
Human

**Sequence**  
Asp21-Glu335

**Purity**  
> 95% as analyzed by SDS-PAGE

**Endotoxin Level**  
< 1 EU/ µg of protein by LAL method

**Expression System**  
Human Cells

Formulation **Lyophilized from a 0.2 µm filtered solution of PBS, pH 7.4.**

**Reconstitution**  
It is recommended that this vial be briefly centrifuged prior to opening to bring the contents to the bottom. Reconstitute the lyophilized powder in distilled water up to 100 µg/ml.

**Storage & Stability**  
Upon receiving, this product remains stable for up to 6 months at -70°C or -20°C. Upon reconstitution, the product should be stable for up to 1 week at 4-7°C and up to 3 months at -20°C or below. Avoid repeated freeze-thaw cycles.

**IL-5RA - Additional Information**

**Gene ID** 3568

**Other Names**  
Interleukin-5 receptor subunit alpha, IL-5 receptor subunit alpha, IL-5R subunit alpha, IL-5R-alpha, IL-5RA, CDw125, CD125, IL5RA, IL5R

**Target Background**  
Interleukin-5 Receptor alpha (IL-5R $\alpha$ , CD125) is a 60 kDa hematopoietin receptor that plays a dominant role in eosinophil biology. Mature human IL-5 R $\alpha$  consists of a 322 aa extracellular domain (ECD) with a WSxWS motif and a four cysteine motif, a 20 aa transmembrane segment, and a 58 aa cytoplasmic domain. Within the ECD, human IL-5R $\alpha$  shares 71% aa sequence identity with mouse and rat IL-5 R $\alpha$ . Alternate splicing of human IL-5 R $\alpha$  generates soluble secreted forms which function as IL-5 antagonists. The high affinity receptor for IL-5 is a complex that consists of the ligand binding IL-5 R $\alpha$  and the transmembrane common  $\beta$  chain ( $\beta$ c/CD131) which is shared with the receptor complexes for IL-3 and GM-CSF. IL-5 R $\alpha$  binds IL-5 at low affinity and then

associates with preformed  $\beta$ c oligomers to form the signaling competent receptor complex. IL-5 stimulation of CD34+ hematopoietic progenitor cells induces the up-regulation of transmembrane IL-5R $\alpha$  followed by eosinophilic differentiation and activation.

## IL-5RA - Protein Information

**Name** IL5RA

**Synonyms** IL5R

### Function

Cell surface receptor that plays an important role in the survival, differentiation, and chemotaxis of eosinophils (PubMed:<a href="http://www.uniprot.org/citations/9378992" target="\_blank">9378992</a>). Acts by forming a heterodimeric receptor with CSF2RB subunit and subsequently binding to interleukin-5 (PubMed:<a href="http://www.uniprot.org/citations/1495999" target="\_blank">1495999</a>, PubMed:<a href="http://www.uniprot.org/citations/22528658" target="\_blank">22528658</a>). In unstimulated conditions, interacts constitutively with JAK2. Heterodimeric receptor activation leads to JAK2 stimulation and subsequent activation of the JAK-STAT pathway (PubMed:<a href="http://www.uniprot.org/citations/9516124" target="\_blank">9516124</a>).

### Cellular Location

Membrane; Single-pass type I membrane protein.

### Tissue Location

Expressed on eosinophils and basophils.

## IL-5RA - Protocols

Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

## IL-5RA - Images