

## Recombinant Human IL5RA/IL-5 R $\alpha$ Protein (His Tag)

Catalog Number: PKSH032651

**Note:** Centrifuge before opening to ensure complete recovery of vial contents.

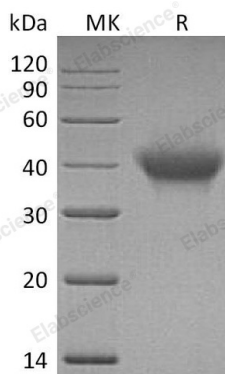
### Description

<b>Species</b>	Human
<b>Source</b>	HEK293 Cells-derived Human IL5RA;IL-5 R $\alpha$ protein Asp21-Glu335, with an C-terminal His
<b>Calculated MW</b>	36.7 kDa
<b>Observed MW</b>	45-60 kDa
<b>Accession</b>	Q01344
<b>Bio-activity</b>	Not validated for activity

### Properties

<b>Purity</b>	> 95 % as determined by reducing SDS-PAGE.
<b>Endotoxin</b>	< 1.0 EU per $\mu$ g of the protein as determined by the LAL method.
<b>Storage</b>	Generally, lyophilized proteins are stable for up to 12 months when stored at -20 to -80°C. Reconstituted protein solution can be stored at 4-8°C for 2-7 days. Aliquots of reconstituted samples are stable at < -20°C for 3 months.
<b>Shipping</b>	This product is provided as lyophilized powder which is shipped with ice packs.
<b>Formulation</b>	Lyophilized from a 0.2 $\mu$ m filtered solution of PBS, pH 7.4. Normally 5% - 8% trehalose, mannitol and 0.01% Tween 80 are added as protectants before lyophilization. Please refer to the specific buffer information in the printed manual.
<b>Reconstitution</b>	Please refer to the printed manual for detailed information.

### Data



> 95 % as determined by reducing SDS-PAGE.

### 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.

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