# Recombinant Human IL5RA/IL-5 Rα Protein (His Tag)

Catalog Number: PKSH032651



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

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 Species
 Human

 Mol\_Mass
 36.7 kDa

 Accession
 Q01344

**Bio-activity** Not validated for activity

#### **Properties**

**Purity** > 95 % as determined by reducing SDS-PAGE.

Endotoxin < 1.0 EU per µg of the protein as determined by the LAL method.

**Storage** 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.

**Shipping** This product is provided as lyophilized powder which is shipped with ice packs.

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

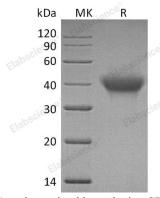
Normally 5% - 8% trehalose, mannitol and 0.01% Tween 80 are added as protectants

before lyophilization.

Please refer to the specific buffer information in the printed manual.

**Reconstitution** 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 GMCSF. 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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