Recombinant Protein Technical Manual

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

RPES2540

Product Data:

Product SKU: RPES2540

Size: 10µg

Species: Human

Expression host: Human Cells

Uniprot: Q01344

Protein Information:

Molecular Mass: 62.5 kDa

AP Molecular Mass: 70-85 kDa

Tag: C-Fc

Bio-activity:

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

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

Storage: 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℃ for 2-7 days. Aliquots of reconstituted samples are stable at < -20℃ 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, pH7.4.

Reconstitution: Please refer to the printed manual for detailed information.

Application:

Synonyms: Interleukin-5 receptor subunit alpha; IL-5 receptor subunit alpha; IL-5R subunit alpha; IL-5R-alpha; IL-5RA; CDw125; CD125; IL5RA; IL5R

Immunogen Information:

Sequence: Asp21-Glu335

Background:

Interleukin-5 Receptor alpha (IL-5Rα, CD125) is a 60 kDa hematopoietin receptor that plays a dominant role in eosinophil biology. Mature human IL-5 Rα 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-5Rα shares 71% aa sequence identity with mouse and rat IL-5 Rα. Alternate splicing of human IL-5 Rα 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 Rα and the transmembrane common β chain (βc/CD131) which is shared with the receptor complexes for IL-3 and GMCSF. IL-5 Rα binds IL-5 at low affinity and then associates with preformed βc oligomers to form the signaling competent receptor complex. IL-5 stimulation of CD34+ hematopoietic progenitor cells induces the up-regulation of transmembrane IL-5Rα followed by eosinophilic differentiation and activation.