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IL-5RA

Catalog # PVGS1664

Product Information

Primary Accession	Q01344
Species	Human
Sequence	Asp21-Glu335
Purity	> 95% as analyzed by SDS-PAGE
Endotoxin Level	
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.

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-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.

Protein Information

Name	IL5RA
Synonyms	IL5R
Function	Cell surface receptor that plays an important role in the survival, differentiation, and chemotaxis of eosinophils (PubMed:9378992). Acts by forming a heterodimeric receptor with CSF2RB subunit and subsequently binding to interleukin-5 (PubMed:1495999, PubMed:22528658). In unstimulated conditions, interacts constitutively with JAK2. Heterodimeric receptor activation leads to JAK2 stimulation and subsequent activation of the JAK-STAT pathway (PubMed:9516124).
Cellular Location	Membrane; Single-pass type I membrane protein.
Tissue Location	Expressed on eosinophils and basophils.