

Recombinant Mouse IL-5RA/IL-5 R α Protein (Human Cells, His Tag)

Catalog No. PKSM041096

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

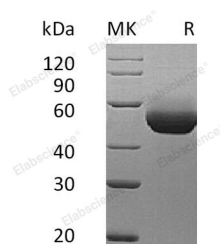
Description

Synonyms	Interleukin-5 receptor subunit alpha;IL-5 receptor subunit alpha;IL-5R subunit alpha;IL-5R-alpha;IL-5RA;CD125;Il5ra;Il5r
Species	Mouse
Expression Host	HEK293 Cells
Sequence	Asp18-His339
Accession	P21183
Calculated Molecular Weight	37.6 kDa
Observed molecular weight	48 kDa
Tag	C-His
Bioactivity	Not validated for activity

Properties

Purity	> 95 % as determined by reducing SDS-PAGE.
Endotoxin	< 1.0 EU per μ g 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 μ m filtered solution of PBS, 5% Trehalose, 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-5 R α), also known as CD125, is a hematopoietin receptor that plays a dominant role in

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eosinophil biology. Mature mouse IL-5 R α consists of a 322 amino acid (aa) extracellular domain (ECD) with a WS \times WS motif and a four cysteine motif, a 22 aa transmembrane segment, and a 54 aa cytoplasmic domain. The high affinity receptor for IL-5 is a complex that consists of the ligand binding IL-5 R α and the transmembrane common β chain (β c/CD131) which is shared with the receptor complexes for IL-3 and GM-CSF. IL-5 R α binds IL-5 at low affinity and then associates with preformed β c oligomers to form the signaling-competent receptor complex. IL-5 stimulation of CD34 $^{+}$ hematopoietic progenitor cells induces the up-regulation of transmembrane IL-5 R α followed by eosinophilic differentiation and activation. IL-5 R α also promotes the differentiation of basophils and B cells. Exposure of mature eosinophils to IL-5 attenuates their IL-5 responsiveness by inducing the down-regulation of surface IL-5 R α and increased production of soluble IL-5 R α .

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