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

Catalog Number: PKSM041096

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

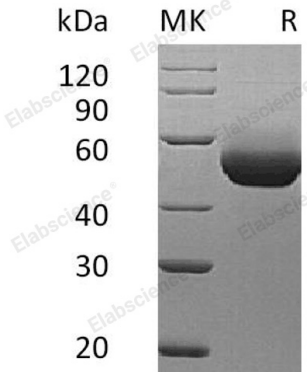
Description

Species	Mouse
Source	HEK293 Cells-derived Mouse IL-5RA/IL-5 Rα protein Asp18-His339, with an C-terminal His
Calculated MW	37.6 kDa
Observed MW	48 kDa
Accession	P21183
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 ℃. 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, 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 Rα), also known as CD125, is a hematopoietin receptor that plays a dominant role in eosinophil biology. Mature mouse IL-5 Rα consists of a 322 amino acid (aa) extracellular domain (ECD) with a WSxWS 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 Rα and the transmembrane common β chain (βc/ CD131) which is shared with the receptor complexes for IL-3 and GM-CSF. 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-5 Rα followed by eosinophilic differentiation and activation. IL-5 Rα 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 Rα and increased production of soluble IL-5 Rα.