Mouse IL-5 Rα/CD125 Alexa Fluor® 750-conjugated Antibody

Antigen Affinity-purified Polyclonal Goat IgG
Catalog Number: AF553S
100 µg

DESCRIPTION

Species Reactivity	Mouse
Specificity	Detects mouse IL-5 Rα/CD125 in direct ELISAs and Western blots. In direct ELISAs, approximately 10% cross-reactivity with recombinant human (rh) IL-5 Rα is observed and less than 1% cross-reactivity with recombinant mous
Source	Polyclonal Goat IgG
Purification	Antigen Affinity-purified
Immunogen	Mouse myeloma cell line NS0-derived recombinant mouse IL-5 Rα/CD125 Asp18-His339 Accession # P21183
Conjugate	Alexa Fluor 750 Excitation Wavelength: 749 nm Emission Wavelength: 775 nm
Formulation	Supplied 0.2mg/ml in 1X PBS with RDF1 and 0.09% Sodium Azide *Contains <0.1% Sodium Azide, which is not hazardous at this concentration according to GHS classifications. Refer to the Safety Data Sheet (SDS) for additional information and handling instructions.

APPLICATIONS

Please Note: *Optimal dilutions should be determined by each laboratory for each application. General Protocols are available in the Technical Information section on our website.*

Western Blot	Optimal dilution of this antibody should be experimentally determined.

PREPARATION AND STORAGE

Shipping	The product is shipped with polar packs. Upon receipt, store it immediately at the temperature recommended below.
Stability & Storage	Protect from light. Do not freeze. 12 months from date of receipt, 2 to 8 °C as supplied

BACKGROUND

Interleukin-5 Receptor alpha (IL-5 Rα), also known as CD125, is a 60 kDa hematopoietin receptor that plays a dominant role in eosinophil biology (1-3). 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 (4). Within the ECD, mouse IL-5 Rα shares 71% and 86% aa sequence identity with human and rat IL-5 Rα, respectively. Alternate splicing of mouse IL-5 Rα generates soluble secreted forms which function as IL-5 antagonists (4, 5). 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 (6). IL-5 Rα binds IL-5 at low affinity and then associates with preformed βc oligomers to form the signaling-competent receptor complex (7). IL-5 stimulation of $CD34^+$ hematopoietic progenitor cells induces the up-regulation of transmembrane IL-5 Rα followed by eosinophilic differentiation and activation (8-10). IL-5 Rα also promotes the differentiation of basophils and B cells (11, 12). 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 (13, 14). Elevated production of IL-5 at sites of allergic inflammation induces eosinophilia and exacerbation of immune cell infiltration, tissue damage, and remodeling (2, 3).

PRODUCT SPECIFIC NOTICES

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