**BACKGROUND**

Interleukin 5 (IL-5) is a soluble T cell-derived factor, also known as T cell-replacing factor (TRF), that induces B cell and eosinophil growth and differentiation. IL-5 exerts its biological activity through the IL-5 receptor (IL-5R), which is composed of two chains: an α chain that binds IL-5 with low affinity and a β chain that does not bind IL-5, but together with the IL-5 α chain, constitutes the high affinity IL-5 receptor. The cytoplasmic domain of both the α and β chains is essential for signal transduction. Specifically, the membrane-proximal proline-rich sequence of the cytoplasmic domain of the IL-5R receptor α subunit, IL-5Rα, is critical for the IL-5 induced proliferative response, expression of nuclear proto-oncogenes and tyrosine phosphorylation of cellular proteins, such as JAK1 and JAK2. Alternative splicing of the IL-5Rα gene produces several isoforms, including a membrane-anchored isoform and a soluble isoform. The soluble isoform competes with IL-5 for binding to IL-5R and inhibits IL-5-mediated receptor activation and inflammatory mediator production, and, therefore, may be useful in treating asthma.

**REFERENCES**


**CHROMOSOMAL LOCATION**

Genetic locus: IL5RA (human) mapping to 3p26.2; Il5ra (mouse) mapping to 6 E1.

**SOURCE**

IL-5Rα (H-300) is a rabbit polyclonal antibody raised against amino acids 21-320 mapping within an N-terminal extracellular domain of IL-5Rα of human origin.

**PRODUCT**

Each vial contains 200 μg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

**APPLICATIONS**

IL-5Rα (H-300) is recommended for detection of IL-5Rα of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 μg per 100-500 μg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for IL-5Rα siRNA (h): sc-23969, IL-5Rα siRNA (m): sc-40064, IL-5Rα shRNA Plasmid (h): sc-29369-SH, IL-5Rα shRNA Plasmid (m): sc-40064-SH, IL-5Rα shRNA (h) Lentiviral Particles: sc-23969-V and IL-5Rα shRNA (m) Lentiviral Particles: sc-40064-V.

Molecular Weight of IL-5Rα isoforms: 75/105 kDa.

Positive Controls: NAMALWA cell lysate: sc-2234, MCF7 whole cell lysate: sc-2206 or mouse heart extract: sc-2254.

**RECOMMENDED SECONDARY REAGENTS**

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible goat anti-rabbit IgG-HRP: sc-2030 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use goat anti-rabbit IgG-FITC: sc-2012 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

**DATA**

![IL-5Rx](image)

**STORAGE**

Store at 4°C, **DO NOT FREEZE**. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

**RESEARCH USE**

For research use only, not for use in diagnostic procedures.