SANTA CRUZ BIOTECHNOLOGY, INC.

IL-5 (H-85): sc-7887

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

Interleukin-5, or IL-5, was originally discovered as a soluble T cell-derived factor, called T cell-replacing factor (TRF), that induced T cell-depleted activated B cells to secrete immunoglobulin. Native IL-5 is a disulfide-linked homodimer. IL-5 is initially synthesized as a precursor with a 19 amino acid signal peptide which is cleaved to form a 112 amino acid mature protein. Murine and human IL-5 exhibit 70% sequence identity at the amino acid level. IL-5 exerts its biological activity through the IL-5 receptor (IL-5R), which is composed of at least 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-5α chain, constitutes the high affinity IL-5 receptor. The β chain is common to the IL-3, IL-5 and GM-CSF receptors and has been shown to signal through the JAK/Stat pathway.

REFERENCES

1. Takatsu, K., et al. 1980. Antigen-induced T cell-replacing factor (TRF). I. Functional characterization of a TRF-producing helper T cell subset and genetic studies on TRF production. J. Immunol. 124: 2414-2422.
2. Azuma, C., et al. 1986. Cloning of cDNA for human T cell replacing factor (interleukin-5) and comparison with the murine homologue. Nucleic Acids Res. 14: 9149-9158.

CHROMOSOMAL LOCATION

Genetic locus: IL5 (human) mapping to 5q31.1; Il5 (mouse) mapping to 11 B1.3.

SOURCE

IL-5 (H-85) is a rabbit polyclonal antibody raised against amino acids 20-104 of IL-5 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.

Available azide-free for biological studies, sc-7887 L, 200 µg/0.1 ml.

APPLICATIONS

IL-5 (H-85) is recommended for detection of IL-5 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), immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

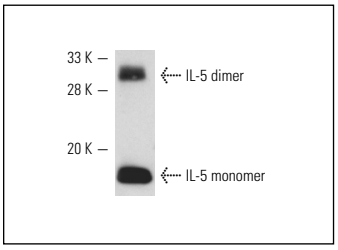
Suitable for use as control antibody for IL-5 siRNA (h): sc-39625, IL-5 siRNA (m): sc-39626, IL-5 shRNA Plasmid (h): sc-39625-SH, IL-5 shRNA Plasmid (m): sc-39626-SH, IL-5 shRNA (h) Lentiviral Particles: sc-39625-V and IL-5 shRNA (m) Lentiviral Particles: sc-39626-V.

Molecular Weight of IL-5: 15 kDa.

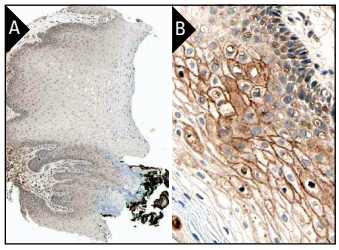
STORAGE

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

DATA



IL-5 (H-85): sc-7887. Western blot analysis of human recombinant IL-5. Note presence of unreduced dimer.



IL-5 (H-85): sc-7887. Immunoperoxidase staining of formalin-fixed, paraffin-embedded human oral mucosa tissue showing cytoplasmic and membrane staining of surface epithelial cells at low (**A**) and high (**B**) magnification. Kindly provided by The Swedish Human Protein Atlas (HPA) program.

SELECT PRODUCT CITATIONS

1. Sakamoto, Y., et al. 2004. Chronic intestinal nematode infection induces Stat6-independent interleukin-5 production and causes eosinophilic inflammatory responses in mice. Immunology 112: 615-623.
2. Soetikno, V., et al. 2011. Curcumin ameliorates macrophage infiltration by inhibiting NFκB activation and proinflammatory cytokines in streptozotocin induced-diabetic nephropathy. Nutr. Metab. 8: 35.
3. Ikner, A. and Ashkenazi, A. 2011. TWEAK induces apoptosis through a death-signaling complex comprising receptor-interacting protein 1 (RIP1), Fas-associated death domain (FADD), and caspase-8. J. Biol. Chem. 286: 21546-21554.
4. Silva, A.C., et al. 2012. Exercise inhibits allergic lung inflammation. Int. J. Sports Med. 33: 402-409.
5. Hizume, D.C., et al. 2012. Cigarette smoke dissociates inflammation and lung remodeling in OVA-sensitized and challenged mice. Respir. Physiol. Neurobiol. 181: 167-176.
6. Wei, X., et al. 2012. Stereospecificity of ginsenoside Rg3 in promotion of the immune response to ovalbumin in mice. Int. Immunol. 24: 465-471.

RESEARCH USE

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