SANTA CRUZ BIOTECHNOLOGY, INC.

IL-9R (G-20): sc-1030

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

Interleukin-9 (IL-9) functions to support the growth of helper T cells, megakaryoblastic leukemia cells, fetal thymocytes, erythroid and myeloid precursors and mast cells. The murine IL-9 receptor has been identified as a protein expressed on a T cell clone. Both the murine and human IL-9 receptor cDNAs have been isolated by expression cloning from the murine T cell clone TS1 and the human megakaryoblastic leukemia cell line MO7E, respectively. In addition, the cloning and analysis of the complete human IL-9 receptor genomic DNA has been reported. In this latter study, the IL-9R gene was shown to consist of 10 exons expressed over approximately 13.7 kb of DNA.

REFERENCES

1. Uyttenhove, C., et al. 1988. Functional and structural characterization of P40, a mouse glycoprotein with T cell growth factor activity. Proc. Natl. Acad. Sci. USA 85: 6934-6938.
2. Yang, Y.C., et al. 1989. Expression cloning of a cDNA encoding a novel human hematopoietic growth factor: human homologue of murine T cell growth factor P40. Blood 74: 1880-1884.
3. Donahue, R.E., et al. 1990. Human P40 T cell growth factor (interleukin-9) supports erythroid colony formation. Blood 75: 2271-2275.

CHROMOSOMAL LOCATION

Genetic locus: IL9R (human) mapping to Xq28.

SOURCE

IL-9R (G-20) is an affinity purified rabbit polyclonal antibody raised against a peptide mapping near the C-terminus of IL-9R 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.

Blocking peptide available for competition studies, sc-1030 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

IL-9R (G-20) is recommended for detection of IL-9R of human origin by Western Blotting (starting dilution 1:100, dilution range 1:50-1:500), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:25, dilution range 1:25-1:250), immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:25, dilution range 1:25-1:250) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for IL-9R siRNA (h): sc-40049, IL-9R shRNA Plasmid (h): sc-40049-SH and IL-9R shRNA (h) Lentiviral Particles: sc-40049-V.

Molecular Weight of human IL-9R: 57 kDa.

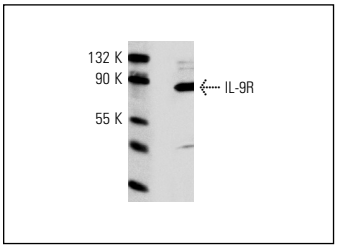
Molecular Weight of mouse IL-9R: 52 kDa.

Positive Controls: MOLT-4 cell lysate: sc-2233.

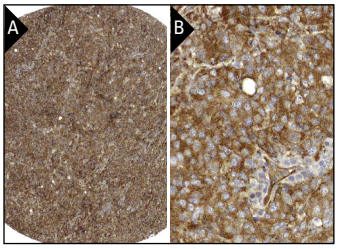
RECOMMENDED SECONDARY REAGENTS

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) or goat anti-rabbit IgG-TR: sc-2780 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941. 4) Immunohistochemistry: use ImmunoCruz™: sc-2051 or ABC: sc-2018 rabbit IgG Staining Systems.

DATA



IL-9R (G-20): sc-1030. Western blot analysis of IL-9R expression in MOLT-4 whole cell lysate.



IL-9R (G-20): sc-1030. Immunoperoxidase staining of formalin-fixed, paraffin-embedded human malignant lymphoma tissue showing cytoplasmic and membrane staining of tumor cells at low (**A**) and high (**B**) magnification. Kindly provided by The Swedish Human Protein Atlas (HPA) program.

SELECT PRODUCT CITATIONS

1. Qiu, L., et al. 2006. Autocrine release of interleukin-9 promotes JAK3-dependent survival of ALK+ anaplastic large-cell lymphoma cells. Blood 108: 2407-2415.
2. Leung, K.W., et al. 2009. Bacterial endotoxin activates retinal pigment epithelial cells and induces their degeneration through IL-6 and IL-8 autocrine signaling. Mol. Immunol. 46: 1374-1386.

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.