

IL-9R (F-3): sc-515622

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 M07E, 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.
4. Druet, C., et al. 1990. Functional and biochemical characterization of mouse P40/IL-9 receptors. *J. Immunol.* 145: 2494-2499.
5. Renauld, J.C., et al. 1992. Expression cloning of the murine and human interleukin-9 receptor cDNAs. *Proc. Natl. Acad. Sci. USA* 89: 5690-5694.

CHROMOSOMAL LOCATION

Genetic locus: IL9R (human) mapping to Xq28/Yq12; IL9r (mouse) mapping to 11 A4.

SOURCE

IL-9R (F-3) is a mouse monoclonal antibody raised against amino acids 41-270 mapping within an N-terminal extracellular domain of IL-9R of human origin.

PRODUCT

Each vial contains 200 µg IgG₁ kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

IL-9R (F-3) is available conjugated to agarose (sc-515622 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-515622 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-515622 PE), fluorescein (sc-515622 FITC), Alexa Fluor[®] 488 (sc-515622 AF488), Alexa Fluor[®] 546 (sc-515622 AF546), Alexa Fluor[®] 594 (sc-515622 AF594) or Alexa Fluor[®] 647 (sc-515622 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor[®] 680 (sc-515622 AF680) or Alexa Fluor[®] 790 (sc-515622 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

STORAGE

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

APPLICATIONS

IL-9R (F-3) is recommended for detection of IL-9R of mouse, rat and human origin by Western Blotting (starting dilution 1:100, 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-9R siRNA (h): sc-40049, IL-9R siRNA (m): sc-40050, IL-9R shRNA Plasmid (h): sc-40049-SH, IL-9R shRNA Plasmid (m): sc-40050-SH, IL-9R shRNA (h) Lentiviral Particles: sc-40049-V and IL-9R shRNA (m) Lentiviral Particles: sc-40050-V.

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

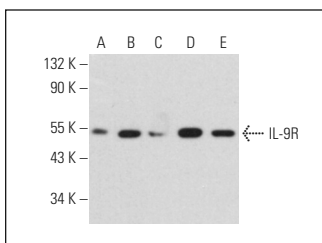
Molecular Weight of mouse IL-9R: 52 kDa.

Positive Controls: Jurkat whole cell lysate: sc-2204, CCRF-CEM cell lysate: sc-2225 or TK-1 whole cell lysate: sc-364798.

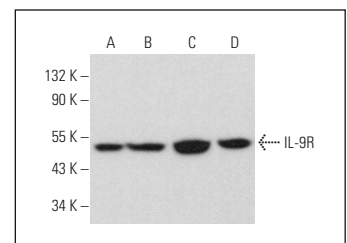
RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker[™] Molecular Weight Standards: sc-2035, UltraCruz[®] Blocking Reagent: sc-516214 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 m-IgGκ BP-FITC: sc-516140 or m-IgGκ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz[®] Mounting Medium: sc-24941 or UltraCruz[®] Hard-set Mounting Medium: sc-359850.

DATA



IL-9R (F-3): sc-515622. Western blot analysis of IL-9R expression in Jurkat (A), Raji (B), Ramos (C), M1 (D) and BYDP (E) whole cell lysates.



IL-9R (F-3): sc-515622. Western blot analysis of IL-9R expression in MEG-01 (A), SUP-T1 (B), CCRF-CEM (C) and TK-1 (D) whole cell lysates.

SELECT PRODUCT CITATIONS

1. Zhao, Y.B., et al. 2020. Interaction between regulatory T cells and mast cells via IL-9 and TGFβ production. *Oncol. Lett.* 20: 360.

RESEARCH USE

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

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