

IL-9 (H-122): sc-7923

BACKGROUND

Interleukin-9, or IL-9, is a TH2 cytokine that has been shown to promote the antigen-independent growth of some T helper clones. IL-9 is a pleiotropic cytokine with multiple functions on cells of lymphoid, myeloid and mast cell lineages. Both mouse and human cDNAs encode 144 amino acid precursors with 18 amino acid residue signal peptides that are cleaved to form the mature biologically active glycoprotein. Although IL-9 is constitutively expressed *in vitro* by several transformed T cell lines, IL-9 expression can be induced in human peripheral blood T lymphocytes by T cell activators such as phorbol esters (PHA) and anti-CD3 antibodies. IL-9 exerts its biological effects through the interleukin-9 receptor, IL-9R. IL-9R is composed of at least two subunits: the IL-2 receptor γ chain, which is common to the IL-2, IL-4, IL-7 and IL-15 receptors, and one specific to the IL-9 receptor.

REFERENCES

1. Van Snick, J., Goethals, A., Renaud, J.C., Van Roost, E., Uyttenhove, C., Rubira, M.R., Moritz, R.L. and Simpson, R.J. 1989. Cloning and characterization of a cDNA for a new mouse T cell growth factor (P40). *J. Exp. Med.* 169: 363-368.
2. Renaud, J.C., Goethals, A., Houssiau, F., Van Roost, E. and Van Snick, J. 1990. Cloning and expression of a cDNA for the human homolog of mouse T cell and mast cell growth factor P40, *Cytokine*. 2: 9-12.

CHROMOSOMAL LOCATION

Genetic locus: IL9 (human) mapping to 5q31.1; Il9 (mouse) mapping to 13 B1.

SOURCE

IL-9 (H-122) is a rabbit polyclonal antibody raised against amino acids 19-140 of IL-9 of human origin.

PRODUCT

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

APPLICATIONS

IL-9 (H-122) is recommended for detection of IL-9 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 μ g per 100-500 μ g 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-9 siRNA (h): sc-39632, IL-9 siRNA (m): sc-39633, IL-9 shRNA Plasmid (h): sc-39632-SH, IL-9 shRNA Plasmid (m): sc-39633-SH, IL-9 shRNA (h) Lentiviral Particles: sc-39632-V and IL-9 shRNA (m) Lentiviral Particles: sc-39633-V.

Molecular Weight (predicted) of IL-9: 14 kDa.

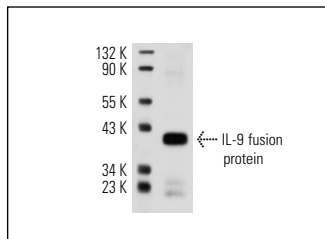
Molecular Weight (observed) of IL-9: 40 kDa.

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.

DATA



IL-9 (H-122): sc-7923. Western blot analysis of human recombinant IL-9 fusion protein.

SELECT PRODUCT CITATIONS

1. Erpenbeck, V.J., et al. 2003. Segmental allergen challenge in patients with atopic asthma leads to increased IL-9 expression in bronchoalveolar lavage fluid lymphocytes. *J. Allergy Clin. Immunol.* 111: 1319-1327.

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.

PROTOCOLS

See our web site at www.scbt.com or our catalog for detailed protocols and support products.



Try **IL-9 (H-7): sc-46654**, our highly recommended monoclonal alternative to IL-9 (H-122).