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IL-9 Antibody

Catalog # ASC11705

Product Information

Application	WB, IF, E, IHC-P
Primary Accession	P15248
Other Accession	NP_000581, 10834980
Reactivity	Human
Host	Rabbit
Clonality	Polyclonal
Isotype	IgG
Calculated MW	15909
Concentration (mg/ml)	1 mg/mL
Conjugate	Unconjugated
Application Notes	IL-9 antibody can be used for detection of IL-9 by Western blot at 1 - 2 □g/ml.

Additional Information

Gene ID	3578
Other Names	Interleukin-9, IL-9, Cytokine P40, T-cell growth factor P40, IL9
Target/Specificity	IL9; IL-9 antibody is human specific. IL-9 antibody is predicted to no cross-react with IL-7.
Reconstitution & Storage	IL-9 antibody can be stored at 4℃ for three months and -20℃, stable for up to one year.
Precautions	IL-9 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	IL9
Function	Multifunctional cytokine secreted mainly by T-helper 2 lymphocytes and also mast cells or NKT cells that plays important roles in the immune response against parasites (PubMed:29742432). Affects intestinal epithelial permeability and adaptive immunity (PubMed:29742432). In addition, induces the differentiation of specific T-cell subsets such as IL-17 producing helper T-cells (TH17) and also proliferation and differentiation of mast cells. Mechanistically, exerts its biological effects through a receptor composed of IL9R subunit and a signal transducing subunit IL2RG. Receptor stimulation results in the rapid activation of JAK1 and JAK3 kinase activities leading to STAT1, STAT3 and STAT5-mediated transcriptional programs. Induction of differentiation genes seems to be mediated by STAT1 alone, while protection of cells from apoptosis depends on STAT3 and STAT5.

Cellular Location Secreted.

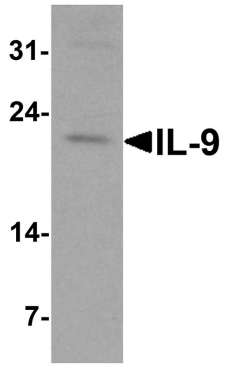
Background

Interleukin 9 (IL-9) is a cytokine secreted by TH2 lymphocytes that acts as a regulator of a variety of hematopoietic cells, stimulates cell proliferation and prevents apoptosis (1,2). It functions through the interleukin 9 receptor (IL9R), which activates different signal transducer and activator (STAT) proteins (3). The IL-9 gene has been identified as a candidate gene for asthma (4). Genetic studies on a mouse model of asthma demonstrated that this cytokine is a determining factor in the pathogenesis of bronchial hyperresponsiveness (5).

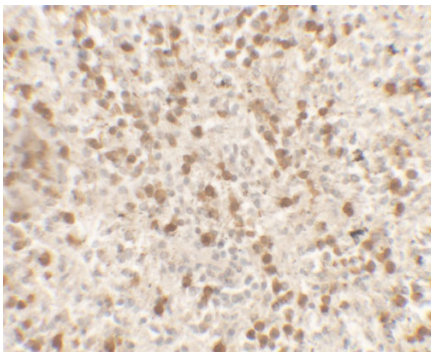
References

Renauld JC, Goethals A, Houssiau F, et al. Cloning and expression of a cDNA for the human homolog of mouse T cell and mast cell growth factor P40. Cytokine 1990; 2:9-12.
Tete S, Saggini A, Maccauro G, et al. Interleukin-9 and mast cells. J. Biol. Homeost. Agents 2012; 26:319-26.
Knoops L and Renauld JC. IL-9 and its receptor: from signal transduction to tumorigenesis. Growth Factors 2004; 22:207-15.
Nicolaides NC, Holroyd KJ, Ewart SL, et al. Interleukin 9: a candidate gene for asthma. Proc. Natl. Acad. Sci. USA 1997; 94:13175-80.

Images

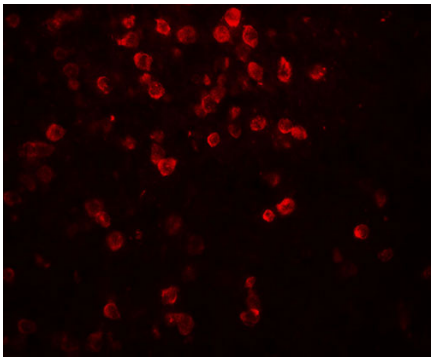


Western blot analysis of IL-9 in human spleen tissue lysate at 1 µg/ml.



Immunohistochemistry of IL-9 in human spleen tissue with IL-9 antibody at 5 µg/mL.

Immunofluorescence of IL-9 in human spleen tissue with IL-9 antibody at 20 µg/mL.



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