

Anti- IL-9 Monoclonal Antibody

Catalog # ABO15022

Product Information

Application	WB
Primary Accession	P15248
Host	Mouse
Isotype	Mouse IgG2b, κ
Reactivity	Rat, Mouse
Clonality	Monoclonal
Format	Lyophilized
Description	Anti- IL-9 Monoclonal Antibody . Tested in WB applications. This antibody reacts with Mouse, Rat.
Reconstitution	Add 0.2ml of distilled water will yield a concentration of 500 μ g/ml.

Additional Information

Gene ID	3578
Other Names	Interleukin-9, IL-9, Cytokine P40, T-cell growth factor P40, IL9
Calculated MW	15909
Application Details	Western blot, 0.25-0.5 μ g/ml, Mouse, Rat
Source	Eukaryota
Protein Name	Interleukin-9
Contents	PBS, pH 7.0. Contains no stabilizers or preservatives
Clone Names	Clone: AFID-9
Immunogen	Human IL-9 coupled to ovalbumin
Purification	Immunogen affinity purified.
Storage	Store at -20°C for one year. For short term storage and frequent use, store at 4°C for up to one month. Avoid repeated freeze-thaw cycles.

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

The protein encoded by this gene is a cytokine that acts as a regulator of a variety of hematopoietic cells. This cytokine stimulates cell proliferation and prevents apoptosis. It functions through the interleukin 9 receptor (IL9R), which activates different signal transducer and activator (STAT) proteins and thus connects this cytokine to various biological processes. The gene encoding this cytokine has been identified as a candidate gene for asthma. Genetic studies on a mouse model of asthma demonstrated that this cytokine is a determining factor in the pathogenesis of bronchial hyperresponsiveness. [provided by RefSeq, Jul 2008]

Images

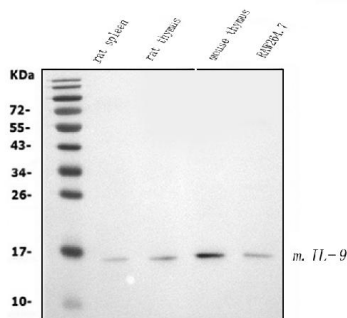


Figure 1. Western blot analysis of IL-9 using anti-IL-9 antibody (M02925).

Electrophoresis was performed on a 5-20% SDS-PAGE gel at 70V (Stacking gel) / 90V (Resolving gel) for 2-3 hours. The sample well of each lane was loaded with 50ug of sample under reducing conditions.

Lane 1: rat spleen tissue lysates,

Lane 2: rat thymus tissue lysates,

Lane 3: mouse thymus tissue lysates,

Lane 4: mouse RAW264.7 whole cell lysates.

After Electrophoresis, proteins were transferred to a Nitrocellulose membrane at 150mA for 50-90 minutes. Blocked the membrane with 5% Non-fat Milk/ TBS for 1.5 hour at RT. The membrane was incubated with mouse anti-IL-9 antigen affinity purified monoclonal antibody (Catalog # M02925) at 0.5 µg/mL overnight at 4°C, then washed with TBS-0.1%Tween 3 times with 5 minutes each and probed with a goat anti-mouse IgG-HRP secondary antibody at a dilution of 1:10000 for 1.5 hour at RT. The signal is developed using an Enhanced Chemiluminescent detection (ECL) kit (Catalog # EK1001) with Tanon 5200 system. A specific band was detected for IL-9 at approximately 16KD. The expected band size for IL-9 is at 16KD.

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