



# Mouse Interleukin 9, IL-9 ELISA KIT

Product Code	CSB-E04643m
Abbreviation	IL9
Target Name	interleukin 9
Uniprot No.	P15247
Alias	HP40, IL-9, P40, T-cell growth factor p40 homolog of mouse T cell and mast cell growth factor 40 p40 T-cell and mast cell growth factor p40 cytokine
Product Type	ELISA Kit
Immunogen Species	Mus musculus (Mouse)
Sample Types	serum, plasma, tissue homogenates
Detection Range	15.6 pg/mL-1000 pg/mL
Sensitivity	3.9 pg/mL
Assay Time	1-5h
Sample Volume	50-100ul
Detection Wavelength	450 nm
Lead Time	3-5 working days after you place the order, and it takes another 3-5 days for delivery via DHL or FedEx.
Research Area	Immunology
Gene Names	IL9
Tag Info	quantitative
Protein Description	Sandwich

## Description

This mouse IL9 ELISA kit employs the quantitative sandwich enzyme immunoassay technique to measure the levels of mouse IL9 in multiple samples, including serum, plasma, or tissue homogenates. The enzyme-substrate chromogenic reaction is also used to amplify the signal and quantify the levels of the analyte through the intensity of the colored product. The color intensity positively correlates with the amount of IL9 bound in the initial step.

IL9 is mainly produced by T lymphocytes. IL-9-mediated signal transduction leads to the activation of STAT1, STAT3, and STAT5 signaling pathways, which are implicated in the progression of cancers, and allergic, inflammatory, and autoimmune diseases. The main role of IL9 is in the immune responses against parasites and the pathogenesis of allergic diseases such as asthma and bronchial hyperreactivity. IL9 exerts an anti-tumor role in solid cancers such as melanoma and breast cancer, whereas it facilitates tumor progression through its lymphocyte growth factor function in hematological neoplasms such as chronic lymphocytic leukemia and Hodgkin's lymphoma.



## Target Details

This protein 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.

## Product Precision

Intra-assay Precision (Precision within an assay): CV%<8%  
Three samples of known concentration were tested twenty times on one plate to assess.

Inter-assay Precision (Precision between assays): CV%<10%  
Three samples of known concentration were tested in twenty assays to assess.

## Linearity

To assess the linearity of the assay, samples were spiked with high concentrations of mouse IL-9 in various matrices and diluted with the Sample Diluent to produce samples with values within the dynamic range of the assay.

	Sample	Serum(n=4)
1:1	Average %	105
	Range %	100-112
1:2	Average %	92
	Range %	88-99
1:4	Average %	88
	Range %	84-92
1:8	Average %	90
	Range %	86-95

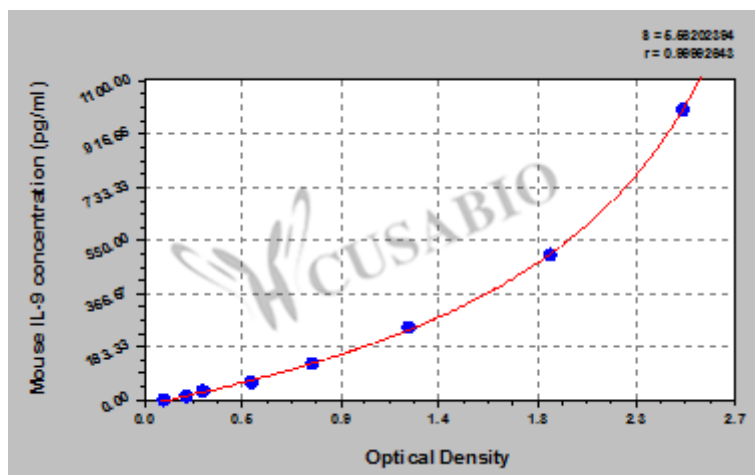
## Recovery

The recovery of mouse IL-9 spiked to levels throughout the range of the assay in various matrices was evaluated. Samples were diluted prior to assay as directed in the Sample Preparation section.

Sample Type	Average % Recovery	Range
Serum (n=5)	95	89-98
EDTA plasma (n=4)	92	88-95

## Typical

These standard curves are provided for demonstration only. A standard curve should be generated for each set of samples assayed.



pg/ml	OD1	OD2	Average	Corrected
1000	2.478	2.520	2.499	2.393
500	1.894	1.876	1.885	1.779
250	1.261	1.204	1.233	1.127
125	0.774	0.809	0.792	0.686
62.5	0.496	0.516	0.506	0.400
31.2	0.294	0.275	0.285	0.179
15.6	0.205	0.210	0.208	0.102
0	0.105	0.107	0.106	

## Msds

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