# **Elabscience**®

### Mouse IL-4 Antibody Pair Set

Catalog No.	E-KAB-0549	Applications	ELISA
Synonyms	IL4;BCGF-1;BCGF1;BSF-1;BSF1		

#### **Kit components & Storage**

Title	Specifications	Storage
Mouse IL-4 Capture Antibody	1 vial, 100 µ g	Store at -20°C for one year. Avoid
		freeze/thaw cycles.
Mouse IL-4 Detection Antibody (Biotin)	1 vial, 50 μL	Store at -20°C for one year. Avoid
		freeze/thaw cycles.

Note: Centrifuge before opening to ensure complete recovery of vial contents.

#### **Product Information**

Items		Characteristic (E-KAB-0549)	
		Mouse IL-4 Capture Antibody	Mouse IL-4 Detection Antibody (Biotin)
Immunogen	Immunogen	Recombinant Mouse IL-4 protien	Recombinant Mouse IL-4 protien
Information	Swissprot	P07750	
Product details	Reactivity	Mouse	Mouse
	Host	Rat	Rat
	Conjugation	Unconjugated	Biotin
	Concentration	0.5 mg/mL	/
	Buffer	PBS with 0.04% Proclin 300; 50%	PBS with 0.04% Proclin 300; 1%
		glycerol; pH 7.5	protective protein; 50% glycerol; pH
			7.5
	Purify	Protein A or G	Protein A or G
	Specificity	Detects Mouse IL-4 in ELISAs.	

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#### Applications

Mouse IL-4 Sandwich ELISA Assay

	Recommended	Reagent	Images
	Concentration/Dilution		
ELISA	0.5-4 μg/mL	Mouse IL-4 Capture Antibody	
Capture			Optical Density
ELISA	1:1000-1:10000	Mouse IL-4 Detection	Optica
Detection		Antibody (Biotin)	0.1
			10 100 1000 1000 Mouse IL-4 Concentration(pg/mL)

Note: This standard curve is only for demonstration purposes. A standard curve should be generated for each assay!

#### Background

Cytokine secreted primarily by mast cells , T-cells , eosinophils , and basophils that plays a role in regulating antibody production , hematopoiesis and inflammation , and the development of effector T-cell responses.Induces the expression of class II MHC molecules on resting B-cells.Enhances both secretion and cell surface expression of IgE and IgG1.Regulates also the expression of the low affinity Fc receptor for IgE (CD23) on both lymphocytes and monocytes.Positively regulates IL31RA expression in macrophages. Stimulates autophagy in dendritic cells by interfering with mTORC1 signaling and through the induction of RUFY4.In addition , plays a critical role in higher functions of the normal brain , such as memory and learning.Upon binding to IL4 , IL4R receptor dimerizes either with the common IL2R gamma chain/IL2RG to produce the type 1 signaling complex , located mainly on hematopoietic cells , or with the IL13RA1 to produce the type 2 complex , which is expressed also on nonhematopoietic cells. Engagement of both types of receptors initiates JAK3 and to a lower extend JAK1 phosphorylation leading to activation of the signal transducer and activator of transcription 6/STAT6.

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