

IL-4 Monoclonal Antibody (E10021)

Catalog NumberMIL4I

Product data sheet

Details		Species Reactivity	
Size	500 µg	Species reactivity	Human
Host/Isotope	Mouse / IgG1	Published species	Human
Class	Monoclonal	Tested Applications	Dilution *
Type	Antibody	ELISA (ELISA)	0.001-20 µg/mL
Clone	E10021	Western Blot (WB)	1:1,000
Immunogen	Recombinant human IL-4 purified from Pichia pastoris	Published Applications	
Conjugate	Unconjugated	ELISA (ELISA)	See 1 publications below
Form	Lyophilized	* Suggested working dilutions are given as a guide only. It is recommended that the user titrate the product for use in their own experiment using appropriate negative and positive controls.	
Concentration	0.5 mg/mL		
Purification	Protein G		
Storage buffer	PBS with 10% trehalose		
Contains	no preservative		
Storage Conditions	4° C		

Product specific information

MIL4I targets IL-4 in ELISA, and WB applications and shows reactivity with Human samples. The MIL4I immunogen is recombinant human IL-4 purified from Pichia pastoris. MIL4I detects IL-4 which has a predicted molecular weight of approximately 15 kDa. Endotoxin levels are less than or equal to 10 µg/mL.

Background/Target Information

Interleukin-4 (IL-4) is a pleiotropic, immune-modulatory cytokine produced by activated T cells, and serves as a ligand for interleukin 4 receptor. IL-4 has been found to have the broadest range of actions. The interleukin 4 receptor also binds to IL13, which may contribute to many overlapping functions of this cytokine and IL13. STAT6, a signal transducer and activator of transcription, has been shown to play an important role in mediating the immune regulatory signal of IL-4. The IL-4 gene, IL-3, IL-5, IL-13, and CSF2 form a cytokine gene cluster on chromosome 5q. In particular, IL-4 is located in close proximity to IL13 on the chromosome. Further, the IL-4 gene, IL13 and IL5 are found to be coordinated by several long-range regulatory elements over a 120 kilobase range on the chromosome. IL-4 delta 2 is a known splice variant of IL-4.

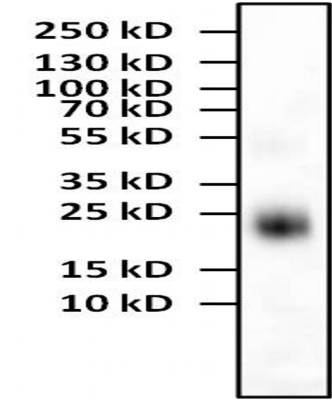
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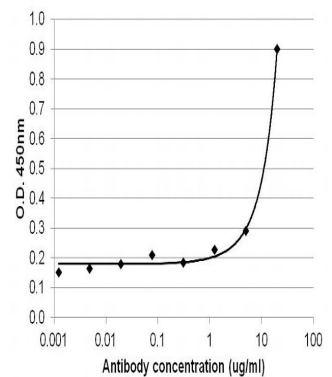
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Product Images For IL-4 Monoclonal Antibody (E10021)



IL-4 Antibody (MIL4I) in WB

Western blot analysis of IL-4 was performed by loading 1 µg of human recombinant protein IL-4 (1 µg/lane, Product # RIL4I) in non-reducing sample buffer and 8 µL PageRuler Plus Prestained Protein Ladder (Product # 26619) per well onto a 4-20% Tris-Glycine polyacrylamide gel (Product # WT4202BOX). Proteins were transferred to a nitrocellulose membrane using the G2 Fast Blotter (Product # 62288) and blocked with 5% Milk/TBST for at least 1 hour at room temperature. IL-4 was detected using a IL-4 mouse monoclonal antibody (Product # MIL4I) at a dilution of 1:1000 in blocking buffer overnight at 4°C on a rocking platform, followed by a HRP conjugated secondary antibody (Product # 62-6520) at a dilution of 1:5000 for at least 1 hour at room temperature. Chemiluminescent detection was performed using SuperSignal West Dura Extended Duration Substrate (Product # 34076) and the myECL Imager (Product # 62236).



IL-4 Antibody (MIL4I) in ELISA

Direct ELISA analysis of IL-4 was performed by coating wells of a 96-well plate with 100 µL per well of IL-4 (Product # RIL4I) diluted in carbonate/bicarbonate buffer (Product # 28382) at a concentration of 1 µg/mL overnight at 4°C. Wells of the plate were washed, blocked with starting blocking buffer (Product # 37538), and incubated with 100 µL per well of a mouse anti-IL-4 monoclonal antibody (Product # MIL4I) at a concentration of 0.0012, 0.005, 0.020, 0.078, 0.312, 1.25, 5 and 20 µg/mL for 90 minutes at 37°C. The plate was washed, then incubated with 100 µL per well of an HRP-conjugated goat anti-mouse IgG secondary antibody (Product # 62-6520) at a dilution of 1:2000 for 90 minutes at 37°C. Detection was performed using 1-Step Ultra TMB substrate (Product # 34028) for 30 minutes at room temperature in the dark. The reaction was stopped with Stop solution (Product # N600), and absorbances were read on a spectrophotometer at 450-550 nm.

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PubMed References For IL-4 Monoclonal Antibody (E10021)

1 ELISA References

Species / Dilution	Summary
Human / Not Cited	<p>MIL4I was used in ELISA to develop and characterize a functional and de-immunized version of hyperglycosylated interferon alpha</p> <p>Clinical immunology (Orlando, Fla.) (Mar 2017; 176: 31)</p> <p>"De-immunized and Functional Therapeutic (DeFT) versions of a long lasting recombinant alpha interferon for antiviral therapy."</p> <p>Author(s):Mufarrege EF,Giorgetti S,Etcheverrigaray M,Terry F,Martin W,De Groot AS</p> <p>PubMed Article URL:http://dx.doi.org/10.1016/j.clim.2017.01.003</p>

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