

IL-4 Monoclonal Antibody (24G2), Biotin

Catalog NumberMM450DB

Product data sheet

Details		Species Reactivity	
Size	250 µg	Species reactivity	Mouse
Host/Isotope	Rat / IgG1	Published species	Mouse
Class	Monoclonal	Tested Applications	Dilution *
Type	Antibody	ELISA (ELISA)	Assay-dependent
Clone	24G2	Western Blot (WB)	Assay-dependent
Immunogen	Recombinant mouse IL-4	Published Applications	
Conjugate	Biotin	ELISA (ELISA)	See 18 publications below
Form	Liquid	* 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 A		
Storage buffer	PBS with 4% BSA		
Contains	proprietary Preservative		
Storage Conditions	-20°C		

Product specific information

MM450DB targets IL-4 in ELISA, and WB applications and shows reactivity with mouse samples. The MM450DB immunogen is recombinant mouse IL-4. MM450DB detects IL-4 which has a predicted molecular weight of approximately 14 kDa. The MM450DB mouse IL4 antibody (biotinylated conjugate of clone 24G2) has successfully been paired as the detection antibody in a sandwich ELISA with capture antibody MM450C (clone 1D11). Typical dilutions for sandwich ELISA include 1 µg/mL for coating and 0.125 - 0.25 µg/mL for detection. Biotinylated antibody MM450DB (clone 24G2) and antibody MM450C (clone 1D11) have successfully been used in combination with recombinant mouse IL4 protein SMIL4 in ELISA applications. This antibody is produced by injecting Rat IgG secreting hybridoma cells into the peritoneum of mice. The resulting ascites is collected from the mice and the antibody is purified.

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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PubMed References For IL-4 Monoclonal Antibody (24G2), Biotin

18 ELISA References

Species / Dilution	Summary
Mouse / 0.5 µg/well	MM450DB was used in ELISA to investigate the role of interleukin 12 in Th1 cell function
	European journal of immunology (1996; 26: 659) "Interleukin-12 is produced by dendritic cells and mediates T helper 1 development as well as interferon-gamma production by T helper 1 cells." Author(s):Heufler C,Koch F,Stanzl U,Topar G,Wysocka M,Trinchieri G,Enk A,Steinman RM,Romani N,Schuler G PubMed Article URL: http://dx.doi.org/10.1002/eji.1830260323
Mouse / Not Cited	MM450DB was used in ELISA to study the vaccination against respiratory syncytial virus
	Journal of immunology (Baltimore, Md. : 1950) (2002; 169: 3208) "Vaccination with recombinant alphavirus or immune-stimulating complex antigen against respiratory syncytial virus." Author(s):Chen M,Hu KF,Rozell B,Orvell C,Morein B,Liljeström P PubMed Article URL: http://dx.doi.org/10.4049/jimmunol.169.6.3208
Mouse / Not Cited	MM450DB was used in ELISA to investigate the effect of STAT6 for a Th1-like response and on cutaneous L. mexicana infection in mice
	Journal of immunology (Baltimore, Md. : 1950) (1998; 161: 6180) "Mice with STAT6-targeted gene disruption develop a Th1 response and control cutaneous leishmaniasis." Author(s):Stamm LM,Räisänen-Sokolowski A,Okano M,Russell ME,David JR,Satoskar AR PubMed Article URL: http://www.ncbi.nlm.nih.gov/pubmed/9834104
Mouse / Not Cited	MM450DB was used in ELISA to study the interleukin levels in the mice with various diets
	Surgery (2002; 131: 59) "The neuropeptide bombesin improves IgA-mediated mucosal immunity with preservation of gut interleukin-4 in total parenteral nutrition-fed mice." Author(s):Zarzaur BL,Wu Y,Fukatsu K,Johnson CD,Kudsk KA PubMed Article URL: http://dx.doi.org/10.1067/msy.2002.118319
Mouse / Not Cited	MM450DB was used in ELISA to investigate the effect of Listeria monocytogenes on immune responses
	Journal of immunology (Baltimore, Md. : 1950) (1998; 161: 4146) "Heat-killed Listeria monocytogenes as an adjuvant converts established murine Th2-dominated immune responses into Th1-dominated responses." Author(s):Yeung VP,Gieni RS,Umetzu DT,DeKruyff RH PubMed Article URL: http://www.ncbi.nlm.nih.gov/pubmed/9780187
Mouse / Not Cited	MM450DB was used in ELISA to detect anti-CagA and anti-NAP cytokine-secreting cells
	Immunology (2003; 110: 86) "Enhanced mucosal and systemic immune responses to Helicobacter pylori antigens through mucosal priming followed by systemic boosting immunizations." Author(s):Vajdy M,Singh M,Ugozzoli M,Briones M,Soenawan E,Cuadra L,Kazzaz J,Ruggiero P,Peppoloni S,Norelli F,del Giudice G,O'Hagan D PubMed Article URL: http://dx.doi.org/10.1046/j.1365-2567.2003.01711.x
Mouse / Not Cited	MM450DB was used in ELISA to study the effect of interleukin-18 on allergic responses in a mouse asthma model
	Journal of immunology (Baltimore, Md. : 1950) (2000; 164: 2701) "IFN-gamma-inducing factor (IL-18) increases allergic sensitization, serum IgE, Th2 cytokines, and airway eosinophilia in a mouse model of allergic asthma." Author(s):Wild JS,Sigounas A,Sur N,Siddiqui MS,Alam R,Kurimoto M,Sur S PubMed Article URL: http://dx.doi.org/10.4049/jimmunol.164.5.2701
Mouse / Not Cited	MM450DB was used in ELISA to investigate the changes of IL-12 expression modulated by corticosteroids in CD4+ T cells
	Journal of immunology (Baltimore, Md. : 1950) (1998; 160: 2231) "Corticosteroids enhance the capacity of macrophages to induce Th2 cytokine synthesis in CD4+ lymphocytes by inhibiting IL-12 production." Author(s):DeKruyff RH,Fang Y,Umetzu DT PubMed Article URL: http://www.ncbi.nlm.nih.gov/pubmed/9498762
Mouse / Not Cited	MM450DB was used in ELISA to study the mechanism for T cell differentiation
	Journal of immunology (Baltimore, Md. : 1950) (1998; 161: 2825) "Commitment of individual Th1-like lymphocytes to expression of IFN-gamma versus IL-4 and IL-10: selective induction of IL-10 by sequential stimulation of naive Th cells with IL-12 and IL-4." Author(s):Assenmacher M,Löhning M,Scheffold A,Richter A,Miltenyi S,Schmitz J,Radbruch A PubMed Article URL: http://www.ncbi.nlm.nih.gov/pubmed/9743342

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	MM450DB was used in ELISA to investigate the immune response against <i>Schistosoma mansoni</i>
Mouse / Not Cited	Immunology (1995; 84: 310) "T-helper type-1-dominated lymph node responses induced in C57BL/6 mice by optimally irradiated cercariae of <i>Schistosoma mansoni</i> are down-regulated after challenge infection." Author(s):Pemberton RM,Wilson RA PubMed Article URL: http://www.ncbi.nlm.nih.gov/pubmed/7751008
Mouse / Not Cited	MM450DB was used in ELISA to investigate the effect of phosphatidylcholine immunization of mice for the parasitaemia of subsequent <i>Plasmodium chabaudi chabaudi</i> blood-stage infections
Mouse / Not Cited	Immunology (1998; 94: 35) "Immunization of mice with phosphatidylcholine drastically reduces the parasitaemia of subsequent <i>Plasmodium chabaudi chabaudi</i> blood-stage infections." Author(s):Bordmann G,Rudin W,Favre N PubMed Article URL: http://dx.doi.org/10.1046/j.1365-2567.1998.00479.x
Mouse / Not Cited	MM450DB was used in ELISA to investigate the induction of interleukin-10 production by acidic beta-lactoglobulin-derived peptides
Mouse / Not Cited	Clinical and diagnostic laboratory immunology (2004; 11: 266) "Stimulation of interleukin-10 production by acidic beta-lactoglobulin-derived peptides hydrolyzed with <i>Lactobacillus paracasei</i> NCC2461 peptidases." Author(s):Prioult G,Pecquet S,Fliss I PubMed Article URL: http://dx.doi.org/10.1128/cdli.11.2.266-271.2004
Mouse / Not Cited	MM450DB was used in ELISA to characterize the airway immune response after influenza A virus infection
Mouse / Not Cited	Journal of virology (2001; 75: 499) "Immune response induced by airway sensitization after influenza A virus infection depends on timing of antigen exposure in mice." Author(s):Yamamoto N,Suzuki S,Suzuki Y,Shirai A,Nakazawa M,Suzuki M,Takamasu T,Nagashima Y,Minami M,Ishigatsubo Y PubMed Article URL: http://dx.doi.org/10.1128/JVI.75.1.499-505.2001
Mouse / Not Cited	MM450DB was used in ELISA to investigate the role of T cytotoxic-1 CD8+ T cells in protection again pneumocystis
Mouse / Not Cited	Journal of immunology (Baltimore, Md. : 1950) (2004; 172: 1132) "T cytotoxic-1 CD8+ T cells are effector cells against pneumocystis in mice." Author(s):McAllister F,Steele C,Zheng M,Young E,Shellito JE,Marrero L,Kolls JK PubMed Article URL: http://dx.doi.org/10.4049/jimmunol.172.2.1132
Mouse / Not Cited	MM450DB was used in ELISA to investigate the cytokine profile after <i>Leishmania major</i> inoculation
Mouse / Not Cited	Infection and immunity (2003; 71: 2674) "The levels and patterns of cytokines produced by CD4 T lymphocytes of BALB/c mice infected with <i>Leishmania major</i> by inoculation into the ear dermis depend on the infectiousness and size of the inoculum." Author(s):Lang T,Courret N,Colle JH,Milon G,Antoine JC PubMed Article URL: http://dx.doi.org/10.1128/IAI.71.5.2674-2683.2003
Mouse / Not Cited	MM450DB was used in ELISA to investigate the effect of CD4 antibodies on Th1 differentiation
Mouse / Not Cited	Journal of immunology (Baltimore, Md. : 1950) (1996; 157: 566) "Th1 development of naive CD4+ T cells is inhibited by co-activation with anti-CD4 monoclonal antibodies." Author(s):Goedert S,Germann T,Hoehn P,Koelsch S,Palm N,Rüde E,Schmitt E PubMed Article URL: http://www.ncbi.nlm.nih.gov/pubmed/8752903
Mouse / Not Cited	MM450DB was used in ELISA to investigate the involvement of pollen NADPH oxidase in allergic airway inflammation
Mouse / Not Cited	The Journal of clinical investigation (2005; 115: 2169) "ROS generated by pollen NADPH oxidase provide a signal that augments antigen-induced allergic airway inflammation." Author(s):Boldogh I,Bacsi A,Choudhury BK,Dharajiya N,Alam R,Hazra TK,Mitra S,Goldblum RM,Sur S PubMed Article URL: http://dx.doi.org/10.1172/JCI24422
Mouse / Not Cited	MM450DB was used in an ELISpot assay to study the T lymphocyte response to <i>Pneumocystis carinii</i> in mice.
Mouse / Not Cited	The Journal of infectious diseases (2000; 181: 2011) "Murine CD4+ T lymphocyte subsets and host defense against <i>Pneumocystis carinii</i>." Author(s):Shellito JE,Tate C,Ruan S,Kolls J PubMed Article URL: http://dx.doi.org/10.1086/315487

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