

IL-4 Monoclonal Antibody (BVD4-1D11)

Catalog NumberAMC0044

Product data sheet

Details		Species Reactivity	
Size	500 µg	Species reactivity	Mouse
Host/Isotope	Rat / IgG2b	Published species	Mouse, Not Applicable
Class	Monoclonal	Tested Applications	
Type	Antibody	ELISA (ELISA)	Dilution *Assay-dependent
Clone	BVD4-1D11	Flow Cytometry (Flow)	Assay-dependent
Immunogen	Recombinant mouse IL-4.	Neutralization (Neu)	Assay-dependent
Conjugate	Unconjugated	Published Applications	
Form	Liquid	ELISA (ELISA)	See 7 publications below
Concentration	1 mg/mL	Flow Cytometry (Flow)	See 1 publications below
Purification	purified	Miscellaneous PubMed (Misc)	See 3 publications below
Storage buffer	PBS	* 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.	
Contains	0.1% sodium azide		
Storage Conditions	-20°C		

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 (BVD4-1D11)

7 ELISA References

Species / Dilution	Summary
	AMC0044 was used in ELISA to determine the fate of autoreactive CD4+T cells in HNT-TCR x GFAP-HA double transgenic mice
Not Applicable / Not Cited	Journal of autoimmunity ( 2004; 22: 179) <b>"A transgenic mouse model for T-cell ignorance of a glial autoantigen."</b> Author(s):Cabarrocas J, Piaggio E, Zappulla JP, Desbois S, Mars LT, Lassmann H, Liblau RS PubMed Article URL: <a href="http://dx.doi.org/10.1016/j.jaut.2004.01.001">http://dx.doi.org/10.1016/j.jaut.2004.01.001</a>
	AMC0044 was used in ELISA to examine the effect of prostaglandin E(2) on polarized cytokine production
Not Applicable / Not Cited	Methods in molecular biology (Clifton, N.J.) ( 2004; 249: 229) <b>"Assay system for the effect of prostaglandin E(2) in the determination of polarized cytokine production."</b> Author(s):Kuroda E, Yamashita U PubMed Article URL: <a href="http://dx.doi.org/10.1385/1-59259-667-3:229">http://dx.doi.org/10.1385/1-59259-667-3:229</a>
	AMC0044 was used in ELISA to study the mechanism of alternaria-mediated damage in airway epithelial cells
Not Applicable / Not Cited	PloS one ( 2012; 7: ) <b>"Alternaria-induced release of IL-18 from damaged airway epithelial cells: an NF-B dependent mechanism of Th2 differentiation?"</b> Author(s):Murai H, Qi H, Choudhury B, Wild J, Dharajiya N, Vaidya S, Kalita A, Bacsi A, Corry D, Kurosky A, Brasier A, Boldogh I, Sur S PubMed Article URL: <a href="http://dx.doi.org/10.1371/journal.pone.0030280">http://dx.doi.org/10.1371/journal.pone.0030280</a>
	AMC0044 was used in ELISA to elucidate the role of CD8(+) T cells in immunity to Chlamydia pneumoniae.
Mouse / Not Cited	Journal of immunology (Baltimore, Md. : 1950) ( 2002; 169: 2524) <b>"Multiple Chlamydia pneumoniae antigens prime CD8+ Tc1 responses that inhibit intracellular growth of this vacuolar pathogen."</b> Author(s):Wizel B, Starcher BC, Samten B, Chroneos Z, Barnes PF, Dzuris J, Higashimoto Y, Appella E, Sette A PubMed Article URL: <a href="http://dx.doi.org/10.4049/jimmunol.169.5.2524">http://dx.doi.org/10.4049/jimmunol.169.5.2524</a>
	AMC0044 was used in ELISA to investigate how isolation stress exacerbates autoimmune disease in MRL/lpr mice
Not Applicable / Not Cited	Journal of neuroimmunology ( 2005; 158: 138) <b>"Social isolation stress exacerbates autoimmune disease in MRL/lpr mice."</b> Author(s):Chida Y, Sudo N, Kubo C PubMed Article URL: <a href="http://dx.doi.org/10.1016/j.jneuroim.2004.09.002">http://dx.doi.org/10.1016/j.jneuroim.2004.09.002</a>
	AMC0044 was used in ELISA to induce protective immunity against secondary hydatidosis and elucidate the mechanisms of protection
Not Applicable / Not Cited	Parasitology research ( 2005; 98: 54) <b>"Humoral and cytokine response during protection of mice against secondary hydatidosis caused by Echinococcus granulosus."</b> Author(s):Al-Qaoud KM, Abdel-Hafez SK PubMed Article URL: <a href="http://dx.doi.org/10.1007/s00436-005-0004-z">http://dx.doi.org/10.1007/s00436-005-0004-z</a>
	AMC0044 was used in ELISA to test if complete neutralization of histamine by an arthropod-derived, high affinity histamine-binding protein prevents allergic asthma
Not Applicable / Not Cited	Journal of immunology (Baltimore, Md. : 1950) ( 2004; 173: 3281) <b>"Arthropod-derived histamine-binding protein prevents murine allergic asthma."</b> Author(s):Couillin I, Maillet I, Vargaftig BB, Jacobs M, Paesen GC, Nuttall PA, Lefort J, Moser R, Weston-Davies W, Ryffel B PubMed Article URL: <a href="http://dx.doi.org/10.4049/jimmunol.173.5.3281">http://dx.doi.org/10.4049/jimmunol.173.5.3281</a>

1 Flow Cytometry References

Species / Dilution	Summary
	AMC0044 was used in flow cytometry to examine the effects of the T helper type 1 and 2-cytokine environment on dendritic cell induction of natural killer T cell-mediated cytokine production
Not Applicable / Not Cited	Blood ( 2005; 106: 1685) <b>"Negative feedback regulation of T helper type 1 (Th1)/Th2 cytokine balance via dendritic cell and natural killer T cell interactions."</b> Author(s):Minami K, Yanagawa Y, Iwabuchi K, Shinohara N, Harabayashi T, Nonomura K, Onoé K PubMed Article URL: <a href="http://dx.doi.org/10.1182/blood-2004-12-4738">http://dx.doi.org/10.1182/blood-2004-12-4738</a>

3 Miscellaneous PubMed References

Species / Dilution	Summary
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AMC0044 was used in flow cytometry to study V alpha 14i NKT cells.

Mouse / Not Cited

Proceedings of the National Academy of Sciences of the United States of America ( 2003; 100: 8395)  
**"Mouse V alpha 14i natural killer T cells are resistant to cytokine polarization in vivo."**  
Author(s):Matsuda JL,Gapin L,Baron JL,Sidobre S,Stetson DB,Mohrs M,Locksley RM,Kronenberg M  
PubMed Article URL:<http://dx.doi.org/10.1073/pnas.1332805100>

AMC0044 was used in flow cytometry to report that IL-4R/Stat6 signaling controls the final frequency of Th2 lymphocytes, but is not essential for Th2 cell development.

Mouse / Not Cited

Journal of immunology (Baltimore, Md. : 1950) ( 2000; 164: 3047)  
**"Single cell analysis reveals that IL-4 receptor/Stat6 signaling is not required for the in vivo or in vitro development of CD4+ lymphocytes with a Th2 cytokine profile."**  
Author(s):Jankovic D,Kullberg MC,Noben-Trauth N,Caspar P,Paul WE,Sher A  
PubMed Article URL:<http://dx.doi.org/10.4049/jimmunol.164.6.3047>

AMC0044 was used in flow cytometry to determine the influences of maturational condition and antigen dose on the capability of DC to induce helper T-cell (Th) differentiation.

Mouse / Not Cited

Immunology ( 2003; 108: 42)  
**"Tumour necrosis factor-alpha but not lipopolysaccharide enhances preference of murine dendritic cells for Th2 differentiation."**  
Author(s):Kikuchi K,Yanagawa Y,Aranami T,Iwabuchi C,Iwabuchi K,Onoé K  
PubMed Article URL:<http://dx.doi.org/10.1046/j.1365-2567.2003.01537.x>

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