

CD4 Monoclonal Antibody (GK1.5), FITC

Catalog Number      MA1-10219

Product data sheet

Details		Species Reactivity	
Size	100 µg	Species reactivity	Mouse
Host/Isotope	Rat / IgG2b	Published species	Mouse
Class	Monoclonal	Tested Applications	Dilution *
Type	Antibody	Flow Cytometry (Flow)	1-2 µg/mL
Clone	GK1.5	Published Applications	
Immunogen	Mouse CTL clone V4 cells	Flow Cytometry (Flow)	See 2 publications below
Conjugate	FITC	Miscellaneous PubMed (Misc)	See 4 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	Size-exclusion chromatography		
Storage buffer	PBS, pH 7.4		
Contains	15mM sodium azide		
Storage Conditions	4° C, store in dark, DO NOT FREEZE!		

Background/Target Information

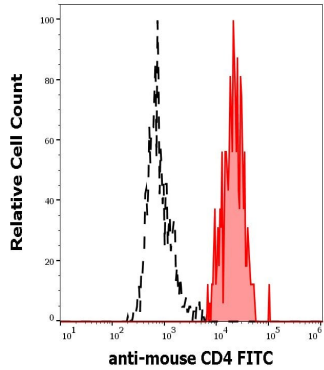
The CD4 antigen is involved in the recognition of MHC class II molecules and is a co-receptor for HIV. CD4 is primarily expressed in a subset of T-lymphocytes, also referred to as T helper cells, but may also be expressed by other cells in the immune system, such as monocytes, macrophages, and dendritic cells. At the tissue level, CD4 expression may be detected in thymus, lymph nodes, tonsils, and spleen, and also in specific regions of the brain, gut, and other non-lymphoid tissues. CD4 functions to initiate or augment the early phase of T-cell activation through its association with the T-cell receptor complex and protein tyrosine kinase, Lck. It may also function as an important mediator of direct neuronal damage in infectious and immune-mediated diseases of the central nervous system. Multiple alternatively spliced transcripts have been identified in this gene [RefSeq, July 2017].

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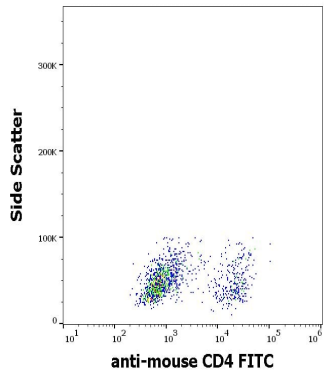
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**CD4 Antibody (MA1-10219) in Flow**

Separation of murine CD4 positive cells (red-filled) from murine CD4 negative cells (black-dashed) in flow cytometry analysis (surface staining) of murine splenocyte suspension stained using anti-mouse CD4 (GK1.5) FITC Monoclonal antibody (Product # MA1-10219) (concentration in sample 0.33  $\mu\text{g/mL}$ ).



**CD4 Antibody (MA1-10219) in Flow**

Flow cytometry surface staining pattern of murine splenocyte suspension stained using anti-mouse CD4 (GK1.5) FITC Monoclonal antibody (Product # MA1-10219) (concentration in sample 0.33  $\mu\text{g/mL}$ ).

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PubMed References For CD4 Monoclonal Antibody (GK1.5), FITC

2 Flow Cytometry References

Species / Dilution	Summary
Mouse / Not Cited	MA110219 was used in flow cytometry to show that deletion of the gene encoding RAB guanine nucleotide exchange factor 1 in keratinocytes severely impairs epidermal barrier function in mice
	The Journal of clinical investigation ( 2016; 126: 4497) <b>"Guanine nucleotide exchange factor RABGEF1 regulates keratinocyte-intrinsic signaling to maintain skin homeostasis."</b> Author(s):Marichal T,Gaudenzio N,El Abbas S,Sibilano R,Zurek O,Starkl P,Reber LL,Pirottin D,Kim J,Chambon P,Roers A, Antoine N,Kawakami Y,Kawakami T,Bureau F,Tam SY,Tsai M,Galli SJ PubMed Article URL: <a href="http://dx.doi.org/10.1172/JCI86359">http://dx.doi.org/10.1172/JCI86359</a>
Mouse / Not Cited	MA110219 was used in flow cytometry to assess surface expression of C-type lectin-like receptor 2 on hematopoietic cells from peripheral blood and secondary lymphoid organs
	European journal of immunology ( 2015; 45: 2484) <b>"The expression of mouse CLEC-2 on leucocyte subsets varies according to their anatomical location and inflammatory state."</b> Author(s):Lowe KL,Navarro-Núñez L,Bénézech C,Nayar S,Kingston BL,Nieswandt B,Barone F,Watson SP,Buckley CD, Desanti GE PubMed Article URL: <a href="http://dx.doi.org/10.1002/eji.201445314">http://dx.doi.org/10.1002/eji.201445314</a>

4 Miscellaneous PubMed References

Species / Dilution	Summary
Mouse / Not Cited	MA1-10219 was used in flow cytometry to investigate factors that mediate induction and maintenance of the 3D configuration of the epithelial network in fetal thymic lobes in vitro.
	The journal of histochemistry and cytochemistry : official journal of the Histochemistry Society ( 2003; 51: 1225) <b>"Development of thymic microenvironments in vitro is oxygen-dependent and requires permanent presence of T-cell progenitors."</b> Author(s):Germeraad WT,Kawamoto H,Itoi M,Jiang Y,Amagai T,Katsura Y, van Ewijk W PubMed Article URL: <a href="http://dx.doi.org/10.1177/002215540305100913">http://dx.doi.org/10.1177/002215540305100913</a>
Mouse / Not Cited	MA1-10219 was used in flow cytometry to report that FcR is a useful marker to isolate the most immature population of murine fetal thymic cells.
	The Journal of experimental medicine ( 1996; 184: 1901) <b>"Isolation of the most immature population of murine fetal thymocytes that includes progenitors capable of generating T, B, and myeloid cells."</b> Author(s):Hattori N,Kawamoto H,Katsura Y PubMed Article URL: <a href="http://dx.doi.org/10.1084/jem.184.5.1901">http://dx.doi.org/10.1084/jem.184.5.1901</a>
Mouse / Not Cited	MA1-10219 was used in flow cytometry to assess the proliferative potential of thymic progenitors that are T cell lineage restricted.
	European journal of immunology ( 2003; 33: 606) <b>"Extensive proliferation of T cell lineage-restricted progenitors in the thymus: an essential process for clonal expression of diverse T cell receptor beta chains."</b> Author(s):Kawamoto H,Ohmura K,Fujimoto S,Lu M,Ikawa T,Katsura Y PubMed Article URL: <a href="http://dx.doi.org/10.1002/eji.200323461">http://dx.doi.org/10.1002/eji.200323461</a>
Mouse / Not Cited	MA1-10219 was used in flow cytometry to elucidate role of SOD-1 overexpression in thymocyte biology.
	Journal of immunology (Baltimore, Md. : 1950) ( 1999; 163: 5399) <b>"Reactive oxygen intermediates during programmed cell death induced in the thymus of the Ts(1716)65Dn mouse, a murine model for human Down's syndrome."</b> Author(s):Paz-Miguel JE,Flores R,Sánchez-Velasco P,Ocejo-Vinyals G,Escribano de Diego J,López de Rego J,Leyva-Cobián F PubMed Article URL: <a href="http://www.ncbi.nlm.nih.gov/pubmed/10553065">http://www.ncbi.nlm.nih.gov/pubmed/10553065</a>

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