

ARG22650 anti-CD4a antibody [MIL17]

Package: 100 µg
Store at: -20°C

Summary

Product Description	<p>Mouse Monoclonal antibody [MIL17] recognizes CD4a</p> <p>This antibody recognizes a 55kDa Porcine homologue to the Human CD4 antigen found on the surface of helper-T cells. MIL-17 was confirmed as a member of the CD4 alpha cluster at the a Third International Workshop on Swine Leukocyte Differentiation Antigens (Haverson et al. 2001). Porcine CD4 is a type 1 trans-membrane member of the immunoglobulin superfamily.</p> <p>Pigs appear unusual amongst mammalian species as they appear to have four populations of resting T lymphocytes. In addition to the two populations of mutually exclusive CD4+/CD8- and CD4-/CD8+ lymphocytes, they also appear to have significant populations of CD4-/CD8- and CD4+/CD8+ cells. Lymphoblasts with a double positive phenotype have been described in other species but this is not the case for mature T lymphocytes (Saalmuller et al. 1987) Mouse anti Pig CD4 alpha, clone MIL17 stains a population of cells with characteristic lymphocyte morphology in immunohistochemistry (Inman et al. 2010).</p>
Tested Reactivity	Pig
Tested Application	FACS, IHC-Fr
Host	Mouse
Clonality	Monoclonal
Clone	MIL17
Isotype	IgG2b
Target Name	CD4a
Species	Pig
Immunogen	Leucocytes isolated from porcine gut lamina propria.
Conjugation	Un-conjugated
Alternate Names	CD4mut; CD antigen CD4; T-cell surface glycoprotein CD4; T-cell surface antigen T4/Leu-3

Application Instructions

Application table	Application	Dilution
	FACS	1:25 - 1:200
	IHC-Fr	Assay-dependent
Application Note	<p>FACS: Use 10 µl of the suggested working dilution to label 10⁶ cells in 100 µl</p> <p>* The dilutions indicate recommended starting dilutions and the optimal dilutions or concentrations should be determined by the scientist.</p>	

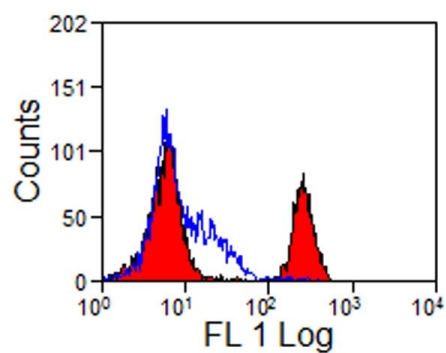
Properties

Form	Liquid
Purification	Purification with Protein A.
Buffer	PBS and 0.09% Sodium azide.

Preservative	0.09% Sodium azide
Concentration	1 mg/ml
Storage instruction	For continuous use, store undiluted antibody at 2-8°C for up to a week. For long-term storage, aliquot and store at -20°C or below. Storage in frost free freezers is not recommended. Avoid repeated freeze/thaw cycles. Suggest spin the vial prior to opening. The antibody solution should be gently mixed before use.
Note	For laboratory research only, not for drug, diagnostic or other use.

Bioinformation

Gene Symbol	CD4
Gene Full Name	CD4 molecule
Background	CD4 is a membrane glycoprotein of T lymphocytes that interacts with major histocompatibility complex class II antigens and is also a receptor for the human immunodeficiency virus. This gene is expressed not only in T lymphocytes, but also in B cells, macrophages, and granulocytes. It is also expressed in specific regions of the brain. The protein functions to initiate or augment the early phase of T-cell activation, and may function as an important mediator of indirect neuronal damage in infectious and immune-mediated diseases of the central nervous system. Multiple alternatively spliced transcript variants encoding different isoforms have been identified in this gene. [provided by RefSeq, Aug 2010]
Function	CD4 is an integral membrane glycoprotein that plays an essential role in the immune response and serves multiple functions in responses against both external and internal offenses. In T-cells, functions primarily as a coreceptor for MHC class II molecule:peptide complex. The antigens presented by class II peptides are derived from extracellular proteins while class I peptides are derived from cytosolic proteins. Interacts simultaneously with the T-cell receptor (TCR) and the MHC class II presented by antigen presenting cells (APCs). In turn, recruits the Src kinase LCK to the vicinity of the TCR-CD3 complex. LCK then initiates different intracellular signaling pathways by phosphorylating various substrates ultimately leading to lymphokine production, motility, adhesion and activation of T-helper cells. In other cells such as macrophages or NK cells, plays a role in differentiation/activation, cytokine expression and cell migration in a TCR/LCK-independent pathway. Participates in the development of T-helper cells in the thymus and triggers the differentiation of monocytes into functional mature macrophages. [UniProt]
Highlight	Related products: CD4 antibodies ; CD4 ELISA Kits ; CD4 Duos / Panels ; Anti-Mouse IgG secondary antibodies ; Related news: New antibody panels and duos for Tumor immune microenvironment Tumor-Infiltrating Lymphocytes (TILs)
Research Area	Developmental Biology antibody; Immune System antibody; Regulatory T cells Study antibody; T-cell infiltration Study antibody; Tumor-infiltrating Lymphocyte Study antibody
Calculated Mw	51 kDa
PTM	Palmitoylation and association with LCK contribute to the enrichment of CD4 in lipid rafts.



ARG22650 anti-CD4a antibody [MIL17] FACS image

Flow Cytometry: Porcine peripheral blood lymphocytes stained with ARG22650 anti-CD4a antibody [MIL17] followed by Goat anti-Mouse IgG (FITC).