

ARG22583
anti-CD4 antibody [W3/25]

Package: 100 µg

Store at: -20°C

Summary

Product Description	Mouse Monoclonal antibody [W3/25] recognizes CD4 This antibody recognizes the rat CD4 cell surface glycoprotein, a 55kD molecule expressed by helper T cells and weakly by monocytes. This antibody inhibits proliferation and IL-2 production in the MLR reaction. Mouse anti Rat CD4 antibody, clone W3/25 has been described reacting with paraffin-embedded material following PLP fixation (periodate-lysine-paraformaldehyde) (Whiteland et al. 1995). Mouse anti Rat CD4 antibody, clone W3/25 is routinely tested in flow cytometry on rat splenocytes
Tested Reactivity	Rat
Tested Application	FACS, IHC-Fr, IHC-P
Host	Mouse
Clonality	Monoclonal
Clone	W3/25
Isotype	IgG1
Target Name	CD4
Species	Rat
Immunogen	Rat Thymocyte Membrane Glycoproteins.
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	1:100 - 1:200
	IHC-Fr	Assay-dependent
	IHC-P	1:50

Application Note	IHC-P: PLP fixation is recommended for optimal results. Antigen Retrieval: Citrate acid buffer in TBST (pH 6.0), heat in pressure cooker for 5 min. FACS: Use 10ul of the suggested working dilution to label 10 ⁶ cells in 100ul. * The dilutions indicate recommended starting dilutions and the optimal dilutions or concentrations should be determined by the scientist.
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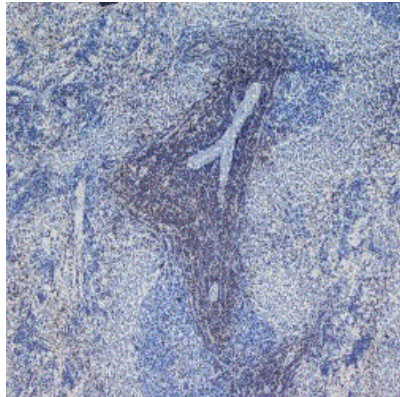
Properties

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.

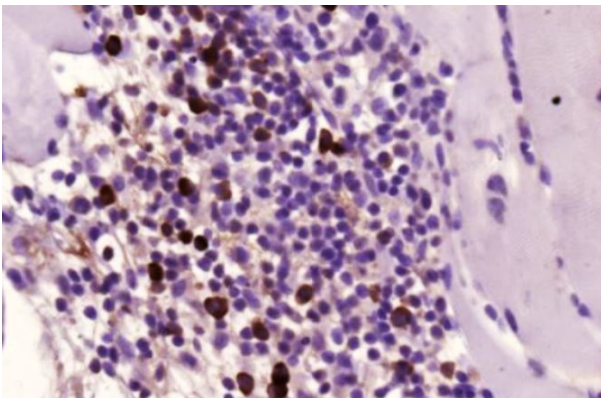
Bioinformation

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.



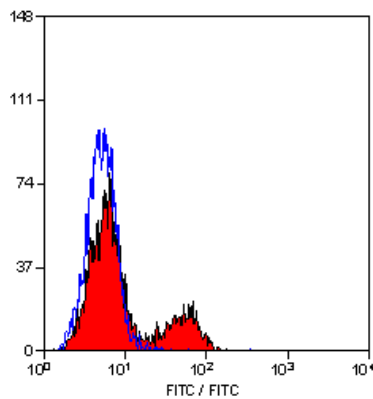
ARG22583 anti-CD4 antibody [W3/25] IHC-Fr image

Immunohistochemistry: Frozen section of Rat spleen stained with ARG22583 anti-CD4 antibody [W3/25].



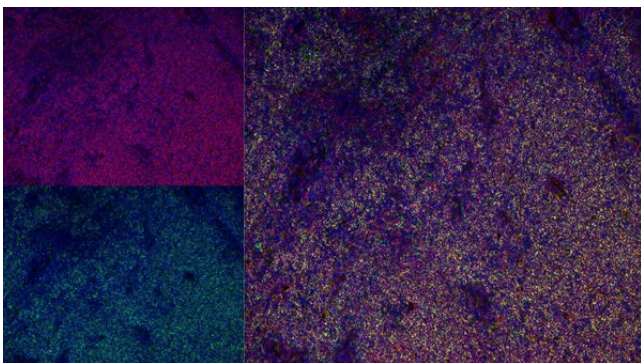
ARG22583 anti-CD4 antibody [W3/25] IHC-P image

Immunohistochemistry: Paraffin-embedded Rat spleen tissue. Antigen Retrieval: Citrate acid buffer in TBST (pH 6.0), heat in pressure cooker for 5 min. The tissue section was stained with ARG22583 anti-CD4 antibody [W3/25] at 1:50 dilution.



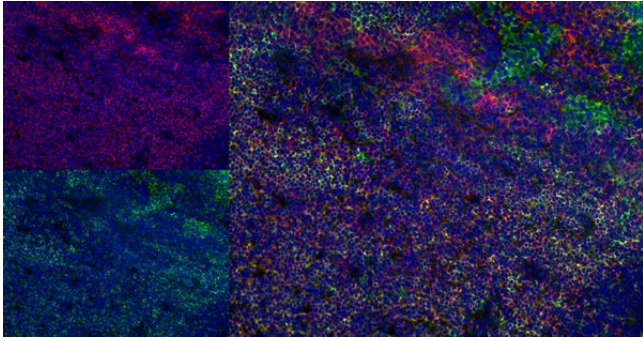
ARG22583 anti-CD4 antibody [W3/25] FACS image

Flow Cytometry: Stimulated Rat spleen cells stained with ARG22583 anti-CD4 antibody [W3/25].



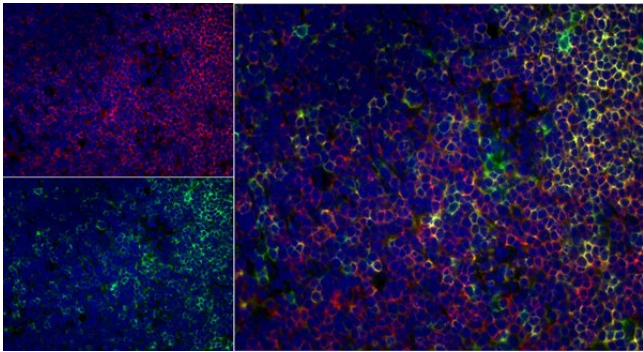
ARG22583 anti-CD4 antibody [W3/25] IHC-Fr image

Immunohistochemistry: Rat lymph node cryosection stained with Mouse anti Rat CD43 antibody in red and ARG22583 anti-CD4 antibody [W3/25] in green. Merged image is on the right. (Low power).



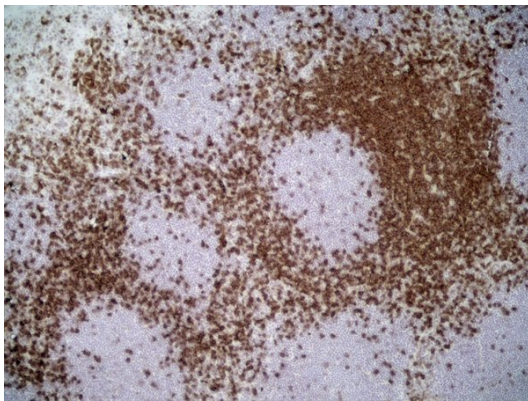
ARG22583 anti-CD4 antibody [W3/25] IHC-Fr image

Immunohistochemistry: Rat lymph node cryosection stained with Mouse anti Rat CD43 antibody in red and ARG22583 anti-CD4 antibody [W3/25] in green. Merged image is on the right. (Medium power).



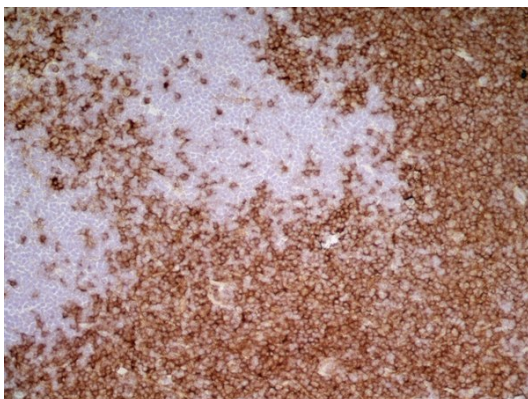
ARG22583 anti-CD4 antibody [W3/25] IHC-Fr image

Immunohistochemistry: Rat lymph node cryosection stained with Mouse anti Rat CD43 antibody in red and ARG22583 anti-CD4 antibody [W3/25] in green. Merged image is on the right. (High power).



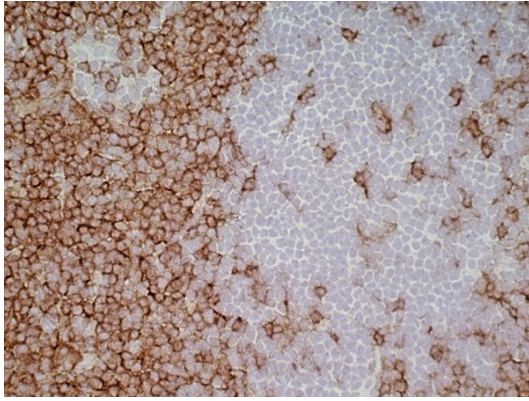
ARG22583 anti-CD4 antibody [W3/25] IHC-Fr image

Immunohistochemistry: Rat lymph node cryosection stained with ARG22583 anti-CD4 antibody [W3/25]. (Low power).



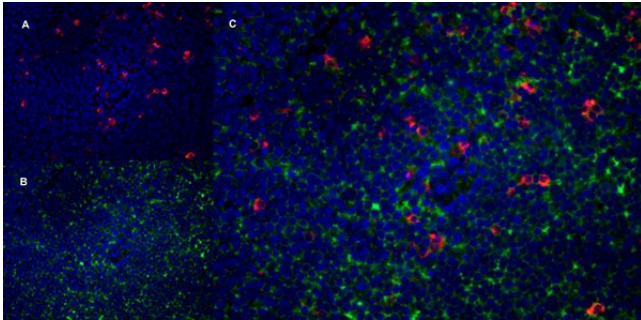
ARG22583 anti-CD4 antibody [W3/25] IHC-Fr image

Immunohistochemistry: Rat lymph node cryosection stained with ARG22583 anti-CD4 antibody [W3/25]. (Medium power).



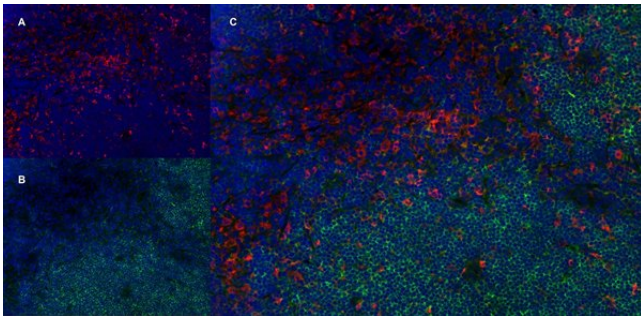
ARG22583 anti-CD4 antibody [W3/25] IHC-Fr image

Immunohistochemistry: Rat lymph node cryosection stained with ARG22583 anti-CD4 antibody [W3/25]. (High power).



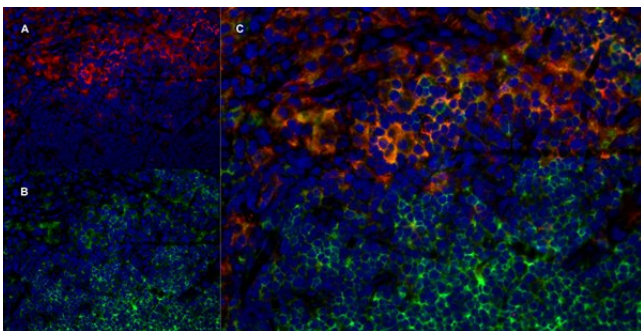
ARG22583 anti-CD4 antibody [W3/25] IHC-Fr image

Immunohistochemistry: Rat lymph node cryosection stained with Mouse anti Rat CD172a antibody, red in A and ARG22583 anti-CD4 antibody [W3/25], green in B. C is the Merged image stained with nuclei counter-stained blue using DAPI. (High power).



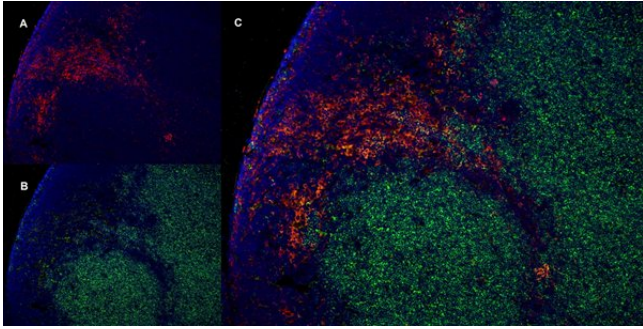
ARG22583 anti-CD4 antibody [W3/25] IHC-Fr image

Immunohistochemistry: Rat lymph node cryosection stained with Mouse anti Rat CD68 antibody, red in A and ARG22583 anti-CD4 antibody [W3/25], green in B. C is the merged image stained with nuclei counter-stained blue using DAPI. (Medium power).



ARG22583 anti-CD4 antibody [W3/25] IHC-Fr image

Immunohistochemistry: Rat lymph node cryosection stained with Mouse anti Rat CD169, clone ED3, red in A and ARG22583 anti-CD4 antibody [W3/25], green in B. C is the merged image stained with nuclei counter-stained blue using DAPI. (High power).



ARG22583 anti-CD4 antibody [W3/25] IHC-Fr image

Immunohistochemistry: Rat lymph node cryosection stained with Mouse anti Rat CD169, clone ED3, red in A and ARG22583 anti-CD4 antibody [W3/25], green in B. C is the merged image stained with nuclei counter-stained blue using DAPI. (Low power).