ARG22571
anti-CD4 antibody [OX-38]

Package: 100 µg
Store at: -20°C

Summary

Product Description	Mouse Monoclonal antibody [OX-38] recognizes CD4 This antibody recognizes the rat CD4 cell surface antigen, also known as W3/25 antigen or T-cell surface antigen T4/Leu-3. CD4 is a 430 amino acid ~55 kDa single pass type I transmembrane glycoprotein expressed by T helper cells, monocytes and macrophages.Clone OX-38 competes for binding with Mouse anti Rat CD4 antibody, clone W3/25. Mouse anti Rat CD4 (Domain 1) antibody, clone OX-38 has been utilized successfully for the in vitro depletion of T helper cells from slice cultures in studies looking at myelin loss in multiple sclerosis, the observed disruption being abrogated in these experimental conditions by T-cell depletion (Pusic et al. 2015).
Tested Reactivity	Rat
Tested Application	FACS, IHC-Fr, IP
Host	Mouse
Clonality	Monoclonal
Clone	OX-38
Isotype	IgG2a
Target Name	CD4
Species	Rat
Immunogen	MLR generated rat T cells.
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
IP	Assay-dependent

Application Note: * The dilutions indicate recommended starting dilutions and the optimal dilutions or concentrations should be determined by the scientist.

Properties

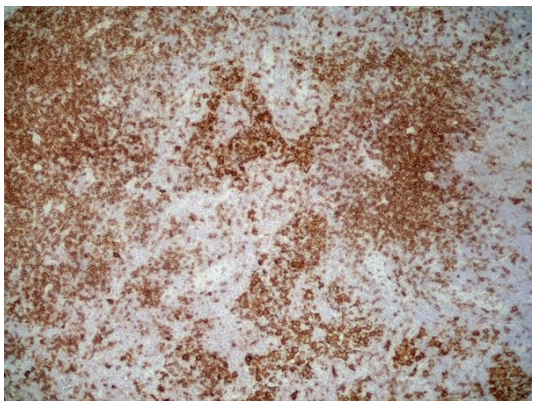
Form	Liquid
Purification	Purification with Protein G.
Buffer	PBS and 0.09% Sodium azide
Preservative	0.09% Sodium azide
Concentration	1 mg/ml

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

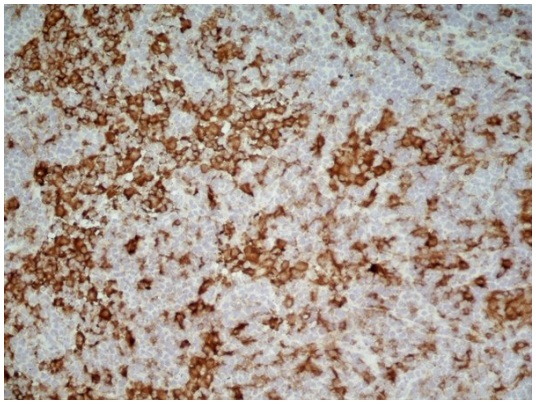
Gene Symbol	Cd4
Gene Full Name	Cd4 molecule
Background	CD4 is a membrane glycoprotein of T lymphocytes that interacts with major histocompatibility complex class II antigenes and is also a receptor for the human immunodeficiency virus. This gene is expressed not only in T lymphocytes, but also in B cells, 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.

Images



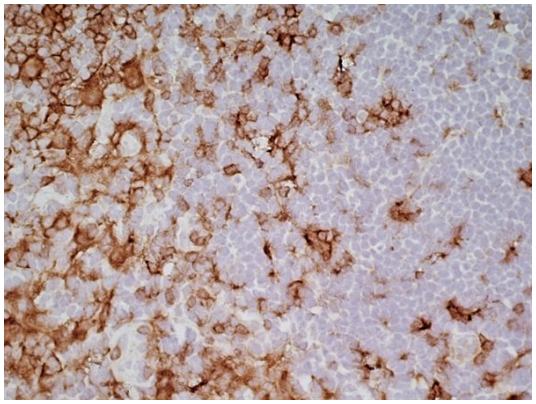
ARG22571 anti-CD4 antibody [OX-38] IHC-Fr image

Immunohistochemistry: Rat lymph node cryosection stained with ARG22571 anti-CD4 antibody [OX-38]. (Low power).



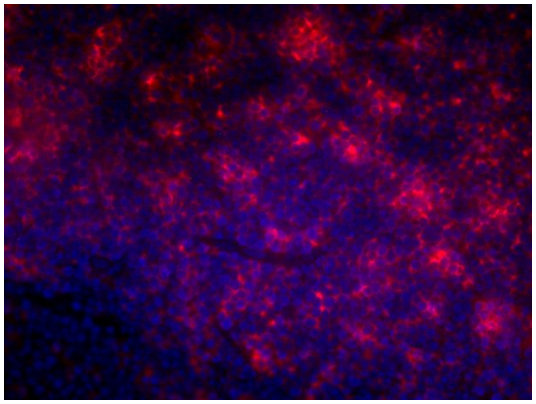
ARG22571 anti-CD4 antibody [OX-38] IHC-Fr image

Immunohistochemistry: Rat lymph node cryosection stained with ARG22571 anti-CD4 antibody [OX-38]. (Medium power).



ARG22571 anti-CD4 antibody [OX-38] IHC-Fr image

Immunohistochemistry: Rat lymph node cryosection stained with ARG22571 anti-CD4 antibody [OX-38]. (High power).



ARG22571 anti-CD4 antibody [OX-38] IHC-Fr image

Immunohistochemistry: Rat lymph node cryosection stained with ARG22571 anti-CD4 antibody [OX-38]. Nuclei are counterstained blue with DAPI.