

ARG22757 anti-CD4 antibody [Du CD4-2]

Package: 125 µg
Store at: -20°C

Summary

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| Product Description | <p>Mouse Monoclonal antibody [Du CD4-2] recognizes CD4</p> <p>This antibody recognizes Pekin duck CD4, shown to be expressed by thymocytes, splenocytes and peripheral lymphoid cells. Since the majority of avian immune studies have been carried out on Chickens, relatively little is known about the immune system of ducks, though there is a resemblance between the main lymphoid organs, the spleen, thymus and bursa of Fabricius. At the cellular level, studies have shown that like mammalian T cells, duck lymphocytes are responsive to phytohaemagglutinin (PHA), and all cells reacting with clone Du CD4-2 have been identified as CD3+ T cells (Kothlow et al. 2005).</p> <p>Clone Du CD4-2 can be used to identify duck T helper cells. This antibody has been shown to not react with Mallard.</p> |
| Tested Reactivity | Duck |
| Tested Application | FACS, IP |
| Host | Mouse |
| Clonality | Monoclonal |
| Clone | Du CD4-2 |
| Isotype | IgG2a |
| Target Name | CD4 |
| Species | Duck |
| Immunogen | 293T cells expressing Pekin duck CD4. |
| 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 - 10 µg/ml |
| | IP | 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

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| Form | Liquid |
| Purification | Purification with Protein G. |
| Buffer | PBS and 0.09% Sodium azide. |
| Preservative | 0.09% Sodium azide |

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| 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

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| 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. |