

Product datasheet

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ARG65860 anti-CD4 antibody [SQab1714]

Package: 100 μl, 50 μl Store at: -20°C

Summary

Product Description Recombinant Rabbit Monoclonal antibody [SQab1714] recognizes CD4

Tested Reactivity Hu

Tested Application FACS, IHC-P, IP, WB

Host Rabbit

Clonality Monoclonal
Clone SQab1714

Isotype IgG
Target Name CD4

Species Human

Immunogen Synthetic peptide around aa. 200-400 of Human 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 - 1:50 |
| | IHC-P | 1:500 - 1:2000 |
| | IP | 1:50 |
| | WB | 1:500 - 1:5000 |
| Application Note | IHC-P: Antigen Retrieval: Boil tissue section in Tris/EDTA buffer (pH 9.0). * 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 A.

Buffer PBS, 0.01% Sodium azide, 40% Glycerol and 0.05% BSA.

Preservative 0.01% Sodium azide

Stabilizer 40% Glycerol and 0.05% BSA

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. 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.

Bioinformation

Database links GeneID: 920 Human

Swiss-port # P01730 Human

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 Antibody Duos and Panels:

ARG30302 T-cell infiltration Antibody Duo

ARG30334 Tumor-infiltrating Lymphocyte Antibody Panel

Related products:

<u>CD4 antibodies;</u> <u>CD4 ELISA Kits;</u> <u>CD4 Duos / Panels;</u> <u>Anti-Rabbit IgG secondary antibodies;</u>

Related news:

More effective cocktail therapy for cancer immune evasion

Tumor-Infiltrating Lymphocytes (TILs)

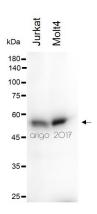
New antibody panels and duos for Tumor immune microenvironment

Research Area Developmental Biology antibody; Immune System antibody; Regulatory T cells Study antibody; T-cell

infiltration Study antibody; Tumor-infiltrating Lymphocyte Study antibody

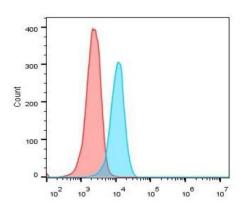
Calculated Mw 51 kDa

PTM Palmitoylation and association with LCK contribute to the enrichment of CD4 in lipid rafts.



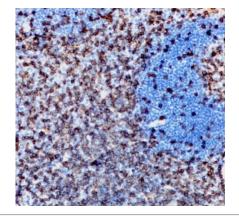
ARG65860 anti-CD4 antibody [SQab1714] WB image

Western blot: 30 µg of Jurkat and Molt4 cell lysates stained with ARG65860 anti-CD4 antibody [SQab1714] at 1:500 dilution.



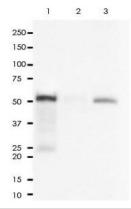
ARG65860 anti-CD4 antibody [SQab1714] FACS image

Flow Cytometry: Jurkat cells were fixed with 4% paraformaldehyde for 10 min. The cells were then stained with ARG65860 anti-CD4 antibody [SQab1714] (blue) at 1:50 dilution in 1x PBS/1% BSA for 30 min at room temperture, followed by Alexa Fluor® 488 labelled secondary antibody. Unlabelled sample (red) was used as a control.



ARG65860 anti-CD4 antibody [SQab1714] IHC-P image

Immunohistochemistry: Formalin/PFA-fixed and paraffin-embedded sections of Human tonsil tissue stained with ARG65860 anti-CD4 antibody [SQab1714] at 1:2000 dilution. Antigen Retrieval: Boil tissue section in Tris/EDTA buffer (pH 9.0).



ARG65860 anti-CD4 antibody [SQab1714] IP image

Immunoprecipitation: 0.4 mg of Molt-4 whole cell lysate was immunoprecipitated (1:50 dilution) and stained with ARG65860 anti-CD4 antibody [SQab1714].

Lane 1: Immunoprecipitation in Molt-4 whole cell lysate

Lane 2: Rabbit IgG instead of Primary Ab in Molt-4 whole cell lysate

Lane 3: Molt-4 whole cell lysate, 10 μg (input)