ARG65449
anti-CD4 antibody [GK1.5] (low endotoxin)

Package: 100 µg
Store at: -20°C

Summary

Product Description	Azide free and low endotoxin Rat Monoclonal antibody [GK1.5] recognizes CD4
Tested Reactivity	Ms
Tested Application	FACS, FuncSt, ICC/IF, IHC-Fr, IP
Specificity	The rat monoclonal antibody GK1.5 reacts with an extracellular epitope of mouse CD4 transmembrane glycoprotein (55 kDa).
Host	Rat
Clonality	Monoclonal
Clone	GK1.5
Isotype	IgG2b, kappa
Target Name	CD4
Species	Mouse
Immunogen	Mouse CTL clone V4 cells
Epitope	extracellular epitope of mouse 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 µg/10^6 cells
FuncSt	Assay-dependent
ICC/IF	1 - 4 µg/ml
IHC-Fr	Assay-dependent
IP	1 - 2 µg / 100 - 500 µg of protein in 1 ml lysate

Application Note

Functional studies: Isolation and depletion of CD4+ T cells, blocking of ligand binding to CD4.
* The dilutions indicate recommended starting dilutions and the optimal dilutions or concentrations should be determined by the scientist.

Properties

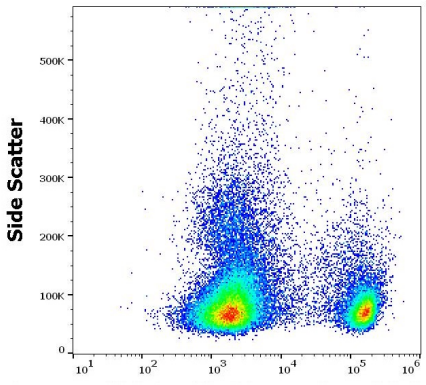
Form	Liquid
Purification	Purification with Protein G.
Purification Note	0.2 µm filter sterilized. Endotoxin level is 95% (by SDS-PAGE)

Buffer	PBS (pH 7.4)
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

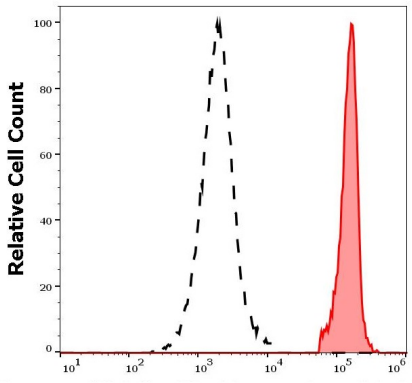
Database links	GeneID: 12504 Mouse Swiss-port # P06332 Mouse
Gene Symbol	CD4
Gene Full Name	CD4 molecule
Background	CD4 is a membrane glycoprotein of T lymphocytes that interacts with major histocompatibility complex class II antigenes and is also a receptor for the human immunodeficiency virus. This 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-Rat 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



ARG65449 anti-CD4 antibody [GK1.5] (low endotoxin) FACS image

Flow Cytometry: Murine splenocyte suspension stained with ARG65449 anti-CD4 antibody [GK1.5] (low endotoxin) at 4 µg/ml dilution, followed by APC-conjugated Donkey anti-Rat antibody.



ARG65449 anti-CD4 antibody [GK1.5] (low endotoxin) FACS image

Flow Cytometry: Separation of murine CD4 positive cells (red-filled) from murine CD4 negative cells (black-dashed). Murine splenocyte suspension stained with ARG65449 anti-CD4 antibody [GK1.5] (low endotoxin) at 4 µg/ml dilution, followed by APC-conjugated Donkey anti-Rat antibody.