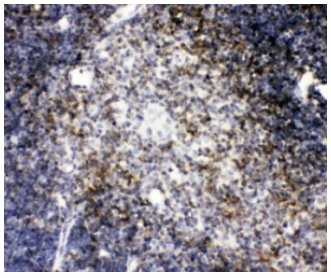
Mouse CD4 Antibody / Murine T Cell Marker Antibody (RQ5873)

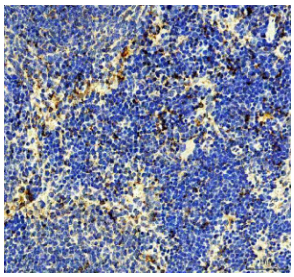
Catalog No.	Formulation	Size
RQ5873	0.5mg/ml if reconstituted with 0.2ml sterile DI water	100 ug

Bulk quote request

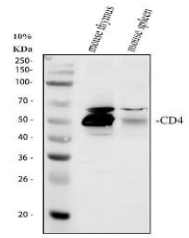
Availability	1-3 business days
Species Reactivity	Mouse
Format	Antigen affinity purified
Host	Rabbit
Clonality	Polyclonal (rabbit origin)
Isotype	Rabbit IgG
Purity	Affinity purified
Buffer	Lyophilized from 1X PBS with 2% Trehalose
UniProt	P05540
Applications	Western blot: 0.5-1ug/ml Immunohistochemistry: 1-2ug/ml Direct ELISA: 0.1-0.5ug/ml
Limitations	This Mouse CD4 Antibody / Murine T Cell Marker Antibody is available for research use only.



Mouse CD4 Antibody Mouse Thymus IHC. Immunohistochemistry analysis of FFPE mouse thymus tissue using Mouse CD4 Antibody. Heat induced epitope retrieval was performed in pH 8.0 EDTA buffer for 20 minutes prior to incubation with primary antibody. HRP detection with DAB chromogen was used for visualization. Strong staining is observed throughout thymocyte-rich regions, consistent with the expected distribution of CD4-positive T lymphocytes during thymic development. These results support the use of Mouse CD4 Antibody / Murine T Cell Marker Antibody for studying mouse CD4 expression, T cell development and murine immune cell populations.



Mouse CD4 Antibody Mouse Spleen IHC. Immunohistochemistry analysis of FFPE mouse spleen tissue using Mouse CD4 Antibody. Heat induced epitope retrieval was performed in pH 8.0 EDTA buffer prior to incubation with primary antibody (2 ug/mL). HRP detection with DAB chromogen was used for visualization. Distinct staining is observed in T cell-rich regions of the splenic white pulp, consistent with the expected distribution of CD4-positive helper T lymphocytes in mouse spleen. These results support the use of Mouse CD4 Antibody / Murine T Cell Marker Antibody for studying mouse CD4 expression, lymphoid tissue architecture and murine T cell populations.



Mouse CD4 Antibody Mouse Lymphoid Tissue WB. Western blot analysis using Mouse CD4 Antibody. Lane 1: mouse thymus tissue lysate; Lane 2: mouse spleen tissue lysate. A prominent band is detected at approximately 51 kDa in both lymphoid tissues, consistent with the expected molecular weight of CD4. The stronger signal observed in thymus reflects the abundance of developing CD4-positive thymocytes, while detection in spleen confirms expression in mature peripheral lymphoid tissue. These results support the use of Mouse CD4 Antibody / Murine T Cell Marker Antibody for studying mouse CD4 expression, T cell development and murine immune cell populations.

Description

Mouse CD4 Antibody / Murine T Cell Marker Antibody recognizes CD4, a transmembrane glycoprotein expressed predominantly on helper T lymphocytes and smaller populations of monocytes, macrophages and dendritic cells in mice. CD4 functions as a co-receptor for the T cell receptor by binding major histocompatibility complex class II molecules during antigen recognition, thereby enhancing T cell activation and adaptive immune responses. Because of its central role in immune regulation, Mouse CD4 Antibody / Murine T Cell Marker Antibody is widely used to investigate T cell development, immune homeostasis and preclinical disease models.

CD4-positive T cells coordinate both innate and adaptive immunity through cytokine production, activation of cytotoxic lymphocytes, stimulation of B cell antibody responses and regulation of macrophage function. Mouse CD4 expression also defines several specialized T cell populations, including T helper 1, T helper 2, T helper 17 and regulatory T cells, each contributing to distinct immune functions. Monitoring CD4 expression therefore provides valuable insight into lymphocyte differentiation, immune activation and tissue-specific inflammatory responses. Mouse CD4 Antibody / Murine T Cell Marker Antibody is well suited for characterizing these immune cell populations in mouse tissues and experimental models.

Mouse models are indispensable for studying cancer immunology, autoimmune disorders, infectious diseases, transplantation biology and neuroinflammation. Alterations in CD4-positive T cell abundance or function often correlate with disease progression, therapeutic efficacy and immune regulation. Consequently, CD4 serves as one of the most widely used biomarkers for evaluating adaptive immune responses in preclinical research. Reliable detection of mouse CD4 supports investigations into T cell-mediated immunity, immune checkpoint therapies and mechanisms of inflammatory disease.

Beyond its role as a lineage marker, CD4 contributes directly to T cell signaling by stabilizing interactions between the T cell receptor and antigen-presenting cells while recruiting intracellular signaling molecules that promote lymphocyte activation. Ongoing research continues to expand understanding of CD4-positive T cell subsets and their contributions to immune tolerance, chronic inflammation and anti-tumor immunity, further increasing the value of CD4 antibodies in experimental immunology.

NSJ Bioreagents offers Mouse CD4 Antibody / Murine T Cell Marker Antibody products for researchers studying T cell biology, adaptive immunity and mouse disease models. These antibodies support applications including Western blot and immunohistochemistry for analysis of mouse CD4 expression and localization. Mouse CD4 Antibody / Murine T Cell Marker Antibody provides a reliable tool for investigating helper T cell biology, immune regulation and preclinical

immunological research.

For additional CD4 antibody options, including a recombinant rabbit monoclonal antibody with protein microarray validation for exceptional target specificity, explore our main CD4 Antibody page.

Application Notes

Optimal dilution of the Mouse CD4 Antibody / Murine T Cell Marker Antibody should be determined by the researcher.

Immunogen

Recombinant rat protein (amino acids K28-I457) was used as the immunogen for the CD4 Antibody.

Storage

After reconstitution, the CD4 antibody can be stored for up to one month at 4oC. For long-term, aliquot and store at -20oC. Avoid repeated freezing and thawing.

Alternate Names

Mouse CD4 antibody, Murine CD4 antibody, L3T4 antibody, Mouse T Helper Cell Marker antibody, Mouse CD4 Glycoprotein antibody, Murine CD4 Glycoprotein antibody

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