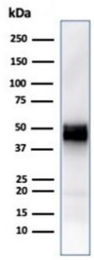
CD5 Antibody rC5/6429 / Immune Tolerance Regulator Antibody [clone rC5/6429] (V9322)

Catalog No.	Formulation	Size
V9322-100UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced), 0.05% sodium azide	100 ug
V9322-20UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced), 0.05% sodium azide	20 ug
V9322SAF-100UG	1 mg/ml in 1X PBS; BSA free, sodium azide free	100 ug

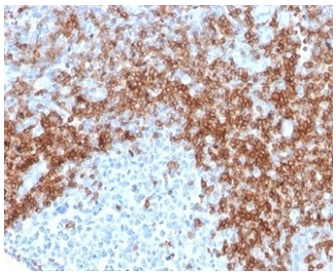
Recombinant | MOUSE MONOCLONAL

Bulk quote request

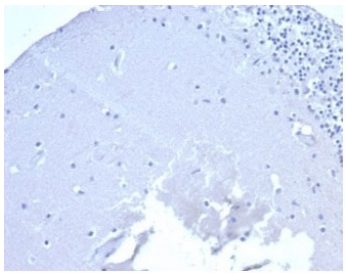
Availability	1-3 business days
Species Reactivity	Human
Format	Purified
Host	Mouse
Clonality	Recombinant Mouse Monoclonal
Isotype	Mouse IgG2a, kappa
Clone Name	rC5/6429
Purity	Protein A/G affinity
UniProt	P06127
Localization	Cell Surface
Applications	Immunohistochemistry (FFPE): 1-2ug/ml Western blot: 1-2ug/ml
Limitations	This CD5 Antibody rC5/6429 / Immune Tolerance Regulator Antibody is available for research use only.



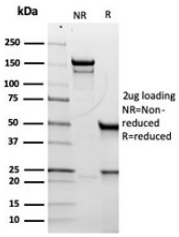
CD5 Antibody rC5/6429 for WB. Western blot analysis of CD5 antibody in human Jurkat cell lysate using an immune tolerance regulator antibody, clone rC5/6429. A band is detected at approximately 55-67 kDa, consistent with the predicted molecular weight of CD5, with size variation reflecting known glycosylation of this membrane glycoprotein. The strong signal observed in this T cell-derived lysate aligns with the established role of CD5 in regulating immune tolerance in T lymphocytes.



CD5 AntibodyrC5/6429 IHC. Immunohistochemistry analysis of CD5 antibody staining in FFPE human tonsil tissue using an immune tolerance regulator antibody, clone rC5/6429. Strong membranous staining is observed in interfollicular T lymphocytes with dense labeling of T cell zones surrounding germinal centers, while follicular B cell regions remain largely negative. The staining pattern highlights normal tonsillar architecture and reflects the role of CD5 in maintaining immune tolerance within lymphoid tissue. Heat-induced epitope retrieval was performed using pH 9 Tris-EDTA buffer for 20 minutes followed by cooling prior to antibody incubation.



Negative control: IHC staining of FFPE human brain tissue using recombinant CD5 antibody (clone rC5/6429) at 2ug/ml in PBS for 30min RT. HIER: boil tissue sections in pH 9 10mM Tris with 1mM EDTA for 20 min and allow to cool before testing.



SDS-PAGE analysis of purified, BSA-free recombinant CD5 antibody (clone rC5/6429) as confirmation of integrity and purity.

Description

CD5 (CD5) is a transmembrane glycoprotein belonging to the scavenger receptor cysteine-rich (SRCR) superfamily, expressed on T lymphocytes and a subset of B cells. CD5 Antibody rC5/6429 / Immune Tolerance Regulator Antibody is used to detect CD5 in the context of immune tolerance and signaling regulation, where it plays a critical role in maintaining immune homeostasis. CD5 antibody, also known as T cell surface glycoprotein CD5 antibody or LEU1 antibody, is widely used in studies of immune regulation, tolerance mechanisms, and lymphocyte biology.

CD5 functions as a negative regulator of antigen receptor signaling, dampening T cell receptor activation and preventing excessive or inappropriate immune responses. This regulatory activity is essential for maintaining tolerance to self-antigens and avoiding autoimmune activation. By setting signaling thresholds, CD5 helps ensure that lymphocytes respond selectively to true pathogenic stimuli while remaining unresponsive to self-derived signals. CD5 antibody is therefore an important tool for studying the molecular mechanisms that govern immune balance.

During thymic development, CD5 expression levels are closely linked to T cell selection processes, where signaling strength determines whether developing thymocytes undergo positive selection, negative selection, or deletion. In mature T cells, CD5 continues to influence signaling sensitivity and contributes to the maintenance of peripheral tolerance. Its expression on select B cell subsets further supports its role in broader immune regulatory networks. CD5 antibody enables investigation of these tolerance-related processes across different stages of lymphocyte development and function.

In disease settings, disruptions in CD5-mediated signaling can contribute to autoimmune disorders, chronic inflammatory conditions, and lymphoid malignancies. Reduced or altered CD5 function may lead to increased immune reactivity, while aberrant expression patterns may be associated with disease progression. CD5 antibody supports research into these conditions by enabling detection of CD5 in systems examining immune tolerance breakdown and dysregulated signaling.

Because immune tolerance is a fundamental aspect of immune system stability, CD5 antibody is frequently used in studies of regulatory T cell function, signaling threshold modulation, and immune checkpoint biology. Its detection provides insight into how immune cells maintain balance and how this balance is altered in disease. CD5 antibody for tolerance-focused research is therefore particularly valuable in studies of immune homeostasis and therapeutic intervention strategies.

This antibody is suitable for detecting CD5 in research applications focused on immune tolerance and regulatory signaling. Its ability to identify CD5 across lymphocyte populations supports studies of immune homeostasis, tolerance mechanisms, and disease-associated changes in immune regulation.

Because CD5 is a key regulator of immune tolerance, CD5 antibody is widely used in studies of lymphocyte signaling balance, immune system stability, and the prevention of aberrant immune activation.

For additional CD5 research, explore our CD5 Antibody CD5/2416, a mouse monoclonal antibody with HuProt protein microarray specificity validation and supporting Western blot, IHC, and flow cytometry data.

Application Notes

Optimal dilution of the CD5 Antibody rC5/6429 / Immune Tolerance Regulator Antibody should be determined by the researcher.

Immunogen

Recombinant full-length protein corresponding to human CD5 was used as the immunogen for the recombinant CD5 antibody.

Storage

Aliquot the recombinant CD5 antibody and store frozen at -20oC or colder. Avoid repeated freeze-thaw cycles.

Alternate Names

CD5 immune tolerance antibody, CD5 tolerance regulator antibody, CD5 immune modulation antibody, CD5 signaling threshold antibody, CD5 immune homeostasis antibody

Copyright © NSJ Bioreagents. All rights reserved.