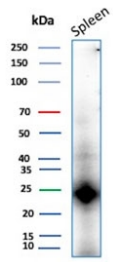
CD161 Antibody KLRB1/8910 / KLRB1 Monoclonal Antibody [clone KLRB1/8910] (V5592)

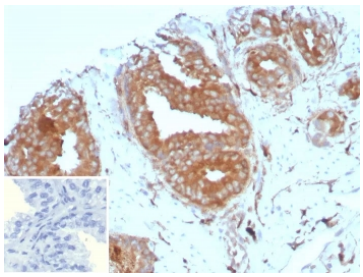
Catalog No.	Formulation	Size
V5592-100UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced), 0.05% sodium azide	100 ug
V5592-20UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced), 0.05% sodium azide	20 ug
V5592SAF-100UG	1 mg/ml in 1X PBS; BSA free, sodium azide free	100 ug

Bulk quote request

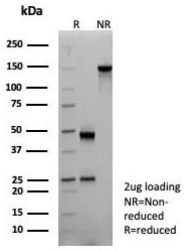
Availability	1-3 business days
Species Reactivity	Human
Format	Purified
Host	Mouse
Clonality	Monoclonal (mouse origin)
Isotype	Mouse IgG1, kappa
Clone Name	KLRB1/8910
Purity	Protein A/G affinity
UniProt	Q12918
Localization	Cytoplasm, Cell membrane
Applications	Immunohistochemistry (FFPE): 1-2ug/ml Western blot: 2-4ug/ml
Limitations	This CD161 Antibody KLRB1/8910 / KLRB1 Monoclonal Antibody is available for research use only.



CD161 Antibody KLRB1/8910 by WB in Human Spleen. Western blot analysis of human spleen tissue lysate using CD161 Antibody KLRB1/8910. A prominent immunoreactive band is observed at approximately 25 kDa, consistent with the predicted molecular weight of CD161/KLRB1. A higher molecular weight band is also visible near 200 kDa, although its identity has not been established. CD161 is a type II transmembrane glycoprotein expressed on natural killer cells and subsets of T lymphocytes. Glycosylation can influence its apparent molecular weight during electrophoresis.



CD161 Antibody KLRB1/8910 by IHC in Human Prostate. Immunohistochemistry of FFPE human prostate tissue using CD161 Antibody KLRB1/8910. Strong brown DAB staining is observed in the glandular epithelium, with prominent cytoplasmic immunoreactivity in epithelial cells. Surrounding stromal tissue exhibits comparatively weaker staining, while nuclei are counterstained blue with hematoxylin. The inset shows a negative control in which PBS replaced the primary antibody. Heat-induced epitope retrieval was performed by boiling tissue sections in 10 mM Tris with 1 mM EDTA, pH 9, for 20 minutes, followed by cooling before antibody incubation.



CD161 Antibody KLRB1/8910 by SDS-PAGE. SDS-PAGE analysis of purified, BSA-free CD161 Antibody KLRB1/8910 under reducing (R) and non-reducing (NR) conditions, with 2 ug of antibody loaded per lane. Under non-reducing conditions, the intact IgG migrates at approximately 150 kDa. Under reducing conditions, the antibody separates into heavy and light chains migrating at approximately 50 kDa and 25 kDa, respectively. The observed banding pattern is consistent with the expected molecular structure of an IgG antibody and supports the integrity and purity of the preparation.

Description

CD161 Antibody KLRB1/8910 recognizes CD161, a C-type lectin-like receptor encoded by the KLRB1 gene and expressed on natural killer (NK) cells and several T lymphocyte populations. Also known as NKR-P1A, CD161 belongs to the natural killer cell receptor family and participates in regulating immune cell activation, cytokine production, and interactions with other immune cells. The protein is a type II transmembrane glycoprotein containing an extracellular C-type lectin-like domain, a transmembrane region, and a short intracellular tail. CD161 is widely studied as a marker of NK cells and specialized T cell subsets involved in innate and adaptive immunity.

KLRB1 is expressed on most human NK cells and subsets of CD4+ and CD8+ T lymphocytes, including mucosal-associated invariant T (MAIT) cells and certain natural killer T (NKT) cells. CD161 expression is particularly prominent on MAIT cells, where it is commonly used alongside additional markers to identify these innate-like lymphocytes. The receptor is also associated with IL-17-producing T cell populations and memory T cells with distinct functional characteristics. Because CD161 is expressed across multiple immune cell types, its detection is often combined with lineage-specific markers to distinguish individual lymphocyte populations.

CD161 interacts with lectin-like transcript 1 (LLT1), also known as CLEC2D, a ligand expressed by various immune and nonimmune cells. Engagement of this receptor-ligand pair can influence lymphocyte activation, cytokine secretion, and cytotoxic responses. Although CD161 was initially characterized as an activating receptor, subsequent studies have demonstrated inhibitory or context-dependent signaling effects, particularly in human NK cells. These findings indicate that CD161 functions as an immunoregulatory receptor whose activity depends on the responding cell population and surrounding signaling environment.

CD161 has attracted considerable attention in cancer immunology because KLRB1 expression is associated with distinct immune cell populations within the tumor microenvironment. Studies have examined CD161-positive T cells in glioma, melanoma, and other malignancies, where receptor signaling may influence antitumor immunity and immune cell exhaustion. The CD161-LLT1 interaction is also being investigated as a potential immunotherapeutic target. However, the biological consequences of CD161 expression vary among tumor types and immune cell subsets, making careful interpretation of expression patterns essential.

Beyond cancer, CD161 participates in immune responses associated with infection, inflammation, and autoimmune disease. Its expression on MAIT cells and other innate-like T lymphocytes makes it particularly relevant to studies of mucosal immunity and inflammatory cytokine production. The receptor is also investigated in psoriasis, rheumatoid arthritis, and other conditions involving altered T cell regulation. NSJ Bioreagents offers clone KLRB1/8910, a mouse monoclonal antibody recognizing human CD161, for examining protein expression and tissue distribution. A CD161

Antibody provides a useful tool for investigating KLRB1 expression, natural killer cell biology, T cell differentiation, and immune regulation.

Explore our selection of CD Antibodies for investigating immune cell surface markers, lymphocyte differentiation, and cellular interactions involved in immune responses.

Application Notes

Optimal dilution of the CD161 Antibody KLRB1/8910 / KLRB1 Monoclonal Antibody should be determined by the researcher.

Immunogen

A recombinant fragment (within amino acids 1-225) of human KLRB1 protein was used as the immunogen for the CD161 Antibody KLRB1/8910.

Storage

Aliquot the CD161 Antibody KLRB1/8910 and store frozen at -20oC or colder. Avoid repeated freeze-thaw cycles.

Alternate Names

KLRB1 antibody, NKR-P1A antibody, NKRP1A antibody, CD161A antibody, Killer Cell Lectin Like Receptor B1 antibody, Natural Killer Cell Receptor antibody

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