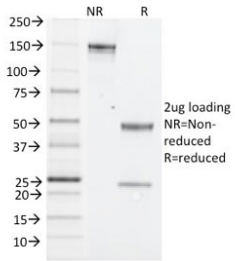
NK1.1 Antibody PK136 / CD161c Monoclonal Antibody [clone PK136] (V8986)

Catalog No.	Formulation	Size
V8986-100UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced), 0.05% sodium azide	100 ug
V8986-20UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced), 0.05% sodium azide	20 ug
V8986SAF-100UG	1 mg/ml in 1X PBS; BSA free, sodium azide free	100 ug

Bulk quote request

Availability	1-3 business days
Species Reactivity	Mouse (strain-dependent) (1)
Format	Purified
Host	Mouse
Clonality	Monoclonal (mouse origin)
Isotype	Mouse IgG2a, kappa
Clone Name	PK136
Purity	Protein A/G affinity
UniProt	P27814
Localization	Cell Surface
Applications	Flow cytometry: 1-2ug/million cells in 0.1ml Immunofluorescence: 1-3ug/ml
Limitations	This NK1.1 Antibody PK136 / CD161c Monoclonal Antibody is available for research use only.



NK1.1 Antibody PK136 by SDS-PAGE. SDS-PAGE analysis of purified NK1.1 Antibody PK136 under non-reducing (NR) and reducing (R) 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 demonstrates the purity of the preparation.

Description

NK1.1 Antibody PK136 recognizes a cell surface antigen expressed on natural killer (NK) cells and certain T cell populations in selected mouse strains. NK1.1 is commonly associated with the C-type lectin-like receptor NKR-P1C, also known as CD161c or KLRB1C, a member of the natural killer cell receptor family. These receptors participate in immune recognition and regulation of cytotoxic responses. NK1.1 is widely used as a marker for identifying NK cells and subsets of natural killer T (NKT) cells, particularly in C57BL/6 mice. Its established role in mouse immunology has made it an important target for investigating innate immunity, lymphocyte development, and immune surveillance.

Clone PK136 is a mouse monoclonal antibody extensively used in published research to identify NK1.1-positive immune cell populations. The antibody recognizes a strain-dependent NK1.1 epitope, with reactivity influenced by genetic variation among members of the NKR-P1 receptor family. Although NK1.1 is commonly associated with CD161c, PK136 can also recognize certain NKR-P1B variants in particular mouse strains. Consequently, NK1.1 expression and antibody reactivity are not universal across laboratory mouse strains. C57BL/6 mice are commonly used for NK1.1-based immunophenotyping, whereas strains such as BALB/c generally lack the conventional PK136-reactive NK1.1 marker.

Natural killer cells are cytotoxic lymphocytes that contribute to early immune defense against virally infected, transformed, and stressed cells. Unlike conventional T lymphocytes, NK cells can recognize and eliminate susceptible targets without prior antigen-specific sensitization. Their activity is regulated through a balance of activating and inhibitory receptors that recognize ligands on potential target cells. NK1.1 is frequently used alongside markers such as CD3, NKp46, and CD49b to distinguish NK cells from other lymphocyte populations. Because some NKT cells and activated T cell subsets also express NK1.1, additional markers are necessary for accurate identification of individual immune cell populations.

The extensive research history of clone PK136 includes studies of NK cell development, immune homeostasis, tumor immunity, infectious disease, and inflammatory responses. In flow cytometry, NK1.1 staining is commonly incorporated into multiparameter panels to characterize NK cells and NKT cell populations in lymphoid organs, peripheral blood, and other tissues. Published research has also employed PK136 in experimental NK cell depletion protocols, allowing investigators to examine the contribution of NK1.1-positive cells to immune responses. However, depletion experiments may affect additional NK1.1-expressing lymphocyte populations, and experimental outcomes depend on mouse strain, antibody formulation, and treatment conditions.

NK1.1-positive cells are particularly important in cancer immunology, where NK cells participate in recognizing and eliminating malignant cells. Their contributions to antiviral defense, cytokine production, and interactions with dendritic cells and T lymphocytes also make them central to studies of innate and adaptive immune coordination. NSJ Bioreagents offers clone PK136 as a mouse IgG2a monoclonal antibody, including a BSA-free and sodium azide-free formulation for researchers requiring alternative buffer conditions. An NK1.1 Antibody provides a valuable tool for investigating natural killer cell populations, immune surveillance, and NK1.1-associated responses in appropriate mouse models.

Explore our selection of Innate Immunity Antibodies for investigating natural killer cells, immune surveillance, host defense, and the regulation of innate immune responses.

Application Notes

Optimal dilution of the NK1.1 Antibody PK136 / CD161c Monoclonal Antibody should be determined by the researcher.

1. Clone PK136 recognizes NK1.1 in certain mouse strains, including C57BL/6 and C57BL/10. Reactivity varies among mouse strains due to genetic differences in NKR-P1 family receptors.

Immunogen

Mouse spleen and bone marrow cells enriched for NK-1+ cells were used as the immunogen for the NK1.1 Antibody PK136.

Storage

Aliquot the NK1.1 Antibody PK136 and store frozen at -20oC or colder. Avoid repeated freeze-thaw cycles.

Alternate Names

NK1.1 antibody, CD161c antibody, KLRB1C antibody, NKR-P1C antibody, Natural Killer Cell Marker antibody, NK Cell Surface Antigen antibody, Mouse NK1.1 antibody

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