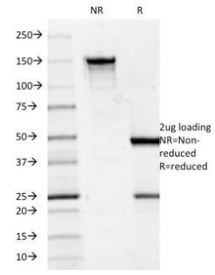
CD7 Antibody / T-cell antigen CD7 [clone 124-1D1] (V2964)

Catalog No.	Formulation	Size
V2964-100UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced) and 0.05% sodium azide	100 ug
V2964-20UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced) and 0.05% sodium azide	20 ug
V2964SAF-100UG	1 mg/ml in 1X PBS; BSA free, sodium azide free	100 ug

Citations (6)

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	124-1D1
Purity	Protein G affinity chromatography
UniProt	P09564
Localization	Cell surface
Applications	Flow Cytometry : 0.5-1ug/million cells Immunofluorescence : 0.5-1ug/ml
Limitations	This CD7 antibody is available for research use only.



SDS-PAGE Analysis of Purified, BSA-Free CD7 Antibody (clone 124-1D1). Confirmation of Integrity and Purity of the Antibody.

Description

CD7 antibody targets CD7, a transmembrane glycoprotein encoded by the CD7 gene that is primarily expressed on T lymphocytes and subsets of natural killer cells. CD7 is a member of the immunoglobulin superfamily and functions as an early marker of T cell lineage commitment, appearing during the initial stages of thymocyte development and persisting on mature peripheral T cells. Through its regulated expression pattern, CD7 contributes to immune system organization and the maintenance of T cell identity across developmental and functional states.

At the cellular level, CD7 localizes to the plasma membrane, where it participates in receptor mediated signaling processes that influence lymphocyte activation and responsiveness. The cytoplasmic domain of CD7 interacts with intracellular signaling molecules involved in modulating activation thresholds and cytokine signaling. CD7 antibody reagents provide a useful tool for examining these signaling pathways by enabling detection of CD7 expression on immune cells in both resting and activated conditions.

CD7 expression is observed throughout most stages of T cell ontogeny, from early thymic progenitors to circulating mature T cells, and is also present on natural killer cells. In contrast, CD7 expression is absent or very low on most B lymphocytes and non-hematopoietic tissues, which makes it a reliable marker for identifying T lineage cells. Altered or reduced CD7 expression has been reported in certain hematologic malignancies, including T cell leukemias and lymphomas, where aberrant immunophenotypes provide important diagnostic and research insights.

Structurally, CD7 consists of a single extracellular immunoglobulin like domain, a transmembrane segment, and a short cytoplasmic tail involved in intracellular signal transduction. These features allow CD7 to function as a surface receptor that integrates extracellular interactions with intracellular signaling networks. Continued investigation into CD7 associated signaling complexes relies on CD7 antibody tools to support studies of immune receptor organization and lymphocyte communication.

From a research and pathology perspective, CD7 is widely used as a lineage marker in immunophenotyping panels designed to characterize immune cell populations. Evaluation of CD7 expression assists in distinguishing T cell derived neoplasms and contributes to classification strategies in hematopathology. In immunology research, CD7 antibody reagents are used to analyze T cell subsets, immune activation states, and dynamic changes in lymphocyte composition under experimental or disease related conditions.

Monoclonal CD7 antibody clone 124-1D1 is designed to recognize CD7 and supports consistent detection of CD7 expression in relevant biological samples. CD7 antibody clone 124-1D1 provides a research tool for studying T cell biology, immune system organization, and disease associated alterations in lymphocyte populations, with NSJ Bioreagents supplying antibodies intended for research use.

Application Notes

Optimal dilution of the CD7 antibody should be determined by the researcher.

Immunogen

Human leukocytes were used as the immunogen for the CD7 antibody.

Storage

Store the CD7 antibody at 2-8oC (with azide) or aliquot and store at -20oC or colder (without azide).