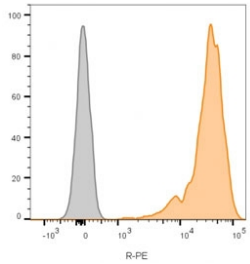
CD45 Antibody 2B11 / Pan-CD45 Isoform Antibody [clone 2B11] (V2240)

Catalog No.	Formulation	Size
V2240-100UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced) and 0.05% sodium azide	100 ug
V2240-20UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced) and 0.05% sodium azide	20 ug
V2240SAF-100UG	1 mg/ml in 1X PBS; BSA free, sodium azide free	100 ug
V2240IHC-7ML	Prediluted in 1X PBS with 0.1 mg/ml BSA (US sourced) and 0.05% sodium azide; *For IHC use only*	7 ml

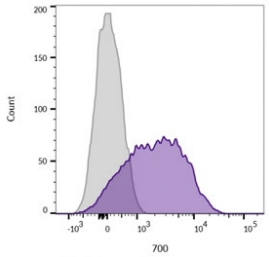
Citations (6)

Bulk quote request

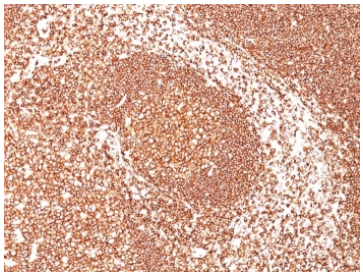
Species Reactivity	Human
Format	Purified
Host	Mouse
Clonality	Monoclonal (mouse origin)
Isotype	Mouse IgG1, kappa
Clone Name	2B11
Purity	Protein G affinity chromatography
Buffer	1X PBS, pH 7.4
Gene ID	5788
Localization	Cell surface and cytoplasmic
Applications	Flow Cytometry : 1-2ug/10^6 cells Immunofluorescence : 1-2ug/ml Immunohistochemistry (FFPE) : 1-2ug/ml for 30 min at RT
Limitations	This CD45 Antibody 2B11 / Pan-CD45 Isoform Antibody is available for research use only.



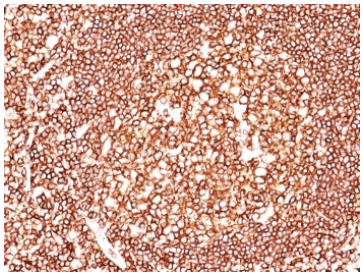
CD45 Antibody 2B11 Human Peripheral Blood Lymphocyte FACS. Flow cytometry of lymphocyte-gated human peripheral blood mononuclear (PBM) cells using CD45 Antibody 2B11 / Pan-CD45 Isoform Antibody. The histogram shows CD45 Antibody staining (orange) and unstained cells (gray). The strong rightward shift of the antibody-stained population demonstrates robust detection of CD45 on human lymphocytes. Clone 2B11 recognizes CD45 across its major isoforms, supporting detection of total CD45 expression in human leukocytes.



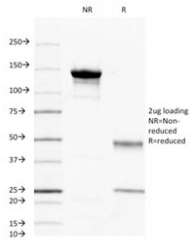
CD45 Antibody 2B11 Human Jurkat T Cell Leukemia FACS. Flow cytometry of live human Jurkat T cell leukemia cells using CD45 Antibody 2B11 / Pan-CD45 Isoform Antibody. The histogram shows CD45 Antibody staining (purple) and unstained cells (gray). The rightward shift of the antibody-stained population demonstrates detection of CD45 on live Jurkat cells. Clone 2B11 recognizes CD45 across its major isoforms, supporting detection of total CD45 expression in human T cells.



CD45 Antibody 2B11 Human Tonsil IHC. Immunohistochemistry of FFPE human tonsil tissue using CD45 Antibody 2B11 / Pan-CD45 Isoform Antibody shows strong HRP-DAB brown staining of lymphoid cells, consistent with the broad expression of CD45 across leukocyte populations. The image was acquired at 10X magnification. Clone 2B11 recognizes CD45 across its major isoforms, supporting detection of total CD45 expression in human lymphoid tissue.



CD45 Antibody 2B11 Human Tonsil Lymphoid Cell IHC. Immunohistochemistry of FFPE human tonsil tissue using CD45 Antibody 2B11 / Pan-CD45 Isoform Antibody at 20X magnification shows strong HRP-DAB brown staining throughout the lymphoid cell population. The higher-magnification view highlights the prominent membrane-associated staining pattern characteristic of CD45 expression on leukocytes. Clone 2B11 provides broad recognition of CD45 isoforms in human lymphoid tissue.



SDS-PAGE Analysis of Purified, BSA-Free CD45 Antibody (clone 2B11). Confirmation of Integrity and Purity of the Antibody.

Description

CD45 Antibody 2B11 / Pan-CD45 Isoform Antibody recognizes CD45, a transmembrane protein tyrosine phosphatase encoded by the PTPRC gene. CD45, also known as leukocyte common antigen, LCA or T200, is broadly expressed by nucleated cells of hematopoietic origin and is one of the most widely used markers for identifying leukocytes. The protein plays a central role in regulating signaling pathways involved in immune cell development, activation and function.

CD45 consists of a large extracellular region, a single transmembrane domain and an intracellular region containing tandem phosphatase domains. Its phosphatase activity regulates Src family kinases and other signaling proteins involved in antigen receptor pathways. Through these interactions, CD45 contributes to signaling through the T cell and B cell receptors and influences lymphocyte activation, differentiation, survival and immune responsiveness. Its broad hematopoietic expression makes CD45 Antibody reagents particularly useful for studying leukocyte populations in normal and diseased tissues.

Alternative splicing of PTPRC produces several CD45 isoforms that differ primarily in their extracellular regions. These isoforms include forms commonly designated CD45RA, CD45RB and CD45RO and exhibit characteristic expression patterns among different leukocyte populations and stages of lymphocyte differentiation. In contrast to antibodies

designed to distinguish individual CD45 isoforms, clone 2B11 recognizes an epitope shared across CD45 isoforms and can therefore detect the major alternatively spliced forms of the protein. This pan-CD45 isoform recognition supports investigation of total CD45 expression across diverse hematopoietic cell populations.

CD45 is extensively studied in immunology, hematology and cancer research. As a pan-leukocyte marker, it is commonly used to identify hematopoietic cells, characterize lymphoid tissues and evaluate leukocyte populations within tumors and other tissues. CD45 expression is also important in studies of leukemias and lymphomas, while the signaling functions of PTPRC provide a connection to research involving lymphocyte activation, immune regulation and inflammatory responses.

Clone 2B11 is a mouse monoclonal antibody with extensive use in published research and recognizes CD45 across its major isoforms. Its broad isoform recognition makes it useful for investigating total CD45 expression without restricting detection to an individual CD45RA, CD45RB or CD45RO form. A CD45 Antibody with pan-isoform recognition can support research into leukocyte identification, hematopoietic cell populations, lymphocyte signaling and immune system function.

CD45 is encoded by PTPRC and functions as a key regulator of leukocyte signaling and hematopoietic cell biology; additional reagents targeting this protein are available on the CD45 Antibody page.

Application Notes

Due to variation in protocol and secondary antibody used, the CD45 Antibody 2B11 / Pan-CD45 Isoform Antibody may need to be titered for optimal performance.

1. FFPE staining requires boiling tissue sections in pH 9 10mM Tris with 1mM EDTA for 10-20 min followed by cooling at RT for 20 minutes.
2. The prediluted format is supplied in a dropper bottle and is optimized for use in IHC. After epitope retrieval step (if required), drip mAb solution onto the tissue section and incubate at RT for 30 min.

Immunogen

Isolated neoplastic cells

Storage

Store the CD45 antibody at 2-8oC (with azide) or aliquot and store at -20oC or colder (without azide).

Alternate Names

CD45 antibody, PTPRC antibody, Leukocyte common antigen antibody, LCA antibody, Protein tyrosine phosphatase receptor type C antibody, T200 antibody

References (2)

Copyright © NSJ Bioreagents. All rights reserved.