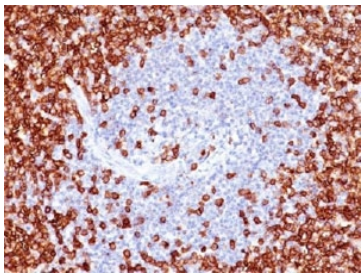
CD45RO Antibody T200/797 / T Cell Differentiation Marker [clone T200/797] (V2419)

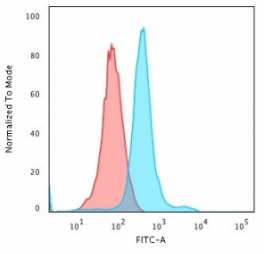
Catalog No.	Formulation	Size
V2419-100UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced) and 0.05% sodium azide	100 ug
V2419-20UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced) and 0.05% sodium azide	20 ug
V2419SAF-100UG	1 mg/ml in 1X PBS; BSA free, sodium azide free	100 ug
V2419IHC-7ML	Prediluted in 1X PBS with 0.1 mg/ml BSA (US sourced) and 0.05% sodium azide; *For IHC use only*	7 ml

Bulk quote request

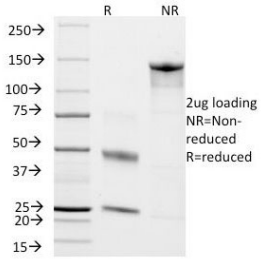
Species Reactivity	Human
Format	Purified
Host	Mouse
Clonality	Monoclonal (mouse origin)
Isotype	Mouse IgG2a, kappa
Clone Name	T200/797
Purity	Protein G affinity chromatography
Buffer	1X PBS, pH 7.4
UniProt	P08575
Localization	Cell surface
Applications	Flow cytometry: 0.5-1ug/10^6 cells Immunohistochemistry (FFPE): 0.25-0.5ug/ml for 30 min at RT
Limitations	This CD45RO Antibody T200/797 / T Cell Differentiation Marker is available for research use only.



CD45RO Antibody T200/797 Human Tonsil T Cell Differentiation IHC. Immunohistochemistry of FFPE human tonsil tissue using CD45RO Antibody T200/797 / T Cell Differentiation Marker shows HRP-DAB brown staining of lymphoid cells, with differential staining across lymphoid regions consistent with CD45RO expression. Heat-induced epitope retrieval was performed by boiling tissue sections in 10 mM citrate buffer, pH 6, for 10-20 min followed by cooling at RT for 20 min. This CD45RO Antibody highlights the distribution of the PTPRC isoform in human lymphoid tissue.



CD45RO Antibody T200/797 Human Jurkat T Cell Leukemia FACS. Flow cytometry of PFA-fixed human Jurkat T cell leukemia cells using CD45RO Antibody T200/797 / T Cell Differentiation Marker. The histogram shows isotype control staining (red) and CD45RO Antibody staining (blue). The clear rightward fluorescence shift demonstrates detection of CD45RO on human Jurkat cells, supporting analysis of this PTPRC isoform during T cell differentiation.



SDS-PAGE analysis of purified, BSA-free CD45RO antibody (clone T200/797) as confirmation of integrity and purity.

Description

CD45RO Antibody T200/797 / T Cell Differentiation Marker recognizes CD45RO, a low molecular weight isoform of the leukocyte common antigen CD45 encoded by the PTPRC gene. CD45 is a transmembrane protein tyrosine phosphatase broadly expressed across nucleated hematopoietic cells. Alternative splicing within its extracellular region generates distinct CD45 isoforms with characteristic expression patterns among leukocyte populations and differentiation states. CD45RO is strongly associated with antigen-experienced lymphocytes and is widely studied as a marker of T cell differentiation.

PTPRC encodes a receptor-type protein tyrosine phosphatase composed of an extracellular region, a single transmembrane domain and intracellular phosphatase domains. CD45 regulates Src family kinases and other components of antigen receptor signaling pathways, contributing to signaling through the T cell and B cell receptors. Through these activities, CD45 influences lymphocyte activation, differentiation, survival and immune responsiveness. Alternative splicing of the extracellular portion of PTPRC generates the major CD45 isoforms used to characterize lymphocyte phenotype.

CD45RO represents a shorter CD45 isoform that lacks the alternatively encoded A, B and C extracellular exons. CD45RO expression is commonly associated with antigen-experienced memory T cells and activated T cell populations. In contrast, naive T cells commonly express CD45RA, and changes in CD45 isoform expression accompany T cell activation and differentiation. A CD45RO Antibody can therefore be used alongside CD45RA and other phenotypic markers to investigate changes in lymphocyte populations and differentiation states. CD45RO is not exclusive to a single T cell population, so its expression is best interpreted together with additional lineage and differentiation markers.

CD45RO is studied in immunology, hematology, inflammation and cancer research. Analysis of CD45RO-positive lymphocytes can contribute to studies of adaptive immune responses, T cell activation and the development and distribution of antigen-experienced lymphocyte populations. CD45RO is also investigated in lymphoid tissues and immune cell infiltrates within inflammatory and tumor microenvironments. Its relationship with other PTPRC isoforms makes the

protein particularly useful for research into changes in lymphocyte phenotype associated with immune activation and differentiation.

Clone T200/797 is a mouse monoclonal antibody directed against human CD45RO and has been used in published research. Its recognition of the CD45RO form of PTPRC supports studies of lymphocyte phenotype and CD45 isoform expression. A CD45RO Antibody provides a useful reagent for investigating T cell differentiation, lymphocyte activation and immune cell phenotyping.

CD45RO is a PTPRC isoform widely associated with memory T cells and lymphocyte differentiation; learn more about this target and related reagents on our CD45RO Antibody page.

Application Notes

Due to variation in protocol and secondary antibody used, the CD45RO Antibody T200/797 / T Cell Differentiation Marker may need to be titered for optimal performance.

1. FFPE staining requires
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

Human T lymphocytes were used as immunogen for this CD45RO antibody.

Storage

The CD45RO antibody (with azide) can be stored at 2-8oC. The azide-free format should be aliquoted and stored at -20oC or colder.

Alternate Names

CD45RO antibody, PTPRC antibody, CD45 antibody, CD45R antibody, Leukocyte common antigen antibody, LCA antibody, T200 antibody, T cell differentiation marker antibody

References (1)

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