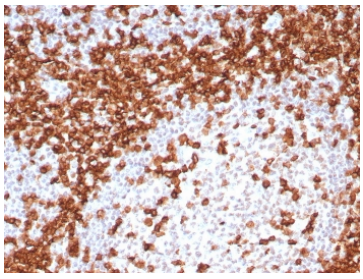
CD45RA Antibody [clone T200/8144R] (V4765)

Catalog No.	Formulation	Size
V4765-100UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced), 0.05% sodium azide	100 ug
V4765-20UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced), 0.05% sodium azide	20 ug
V4765SAF-100UG	1 mg/ml in 1X PBS; BSA free, sodium azide free	100 ug

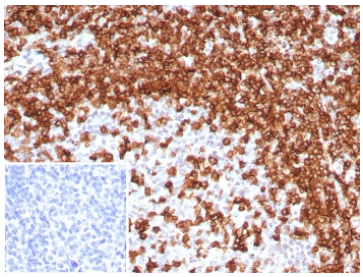
Recombinant RABBIT MONOCLONAL

Bulk quote request

Availability	1-3 business days
Species Reactivity	Human
Format	Purified
Host	Rabbit
Clonality	Recombinant Rabbit Monoclonal
Isotype	Rabbit IgG, kappa
Clone Name	T200/8144R
Purity	Protein A/G affinity
UniProt	P08575
Localization	Cell surface, Cytoplasm
Applications	Immunohistochemistry (FFPE): 1-2ug/ml for 30 min at RT
Limitations	This CD45RA antibody is available for research use only.



IHC staining of FFPE human tonsil tissue with CD45RA antibody (clone T200/8144R). HIER: boil tissue sections in pH 9 10mM Tris with 1mM EDTA for 20 min and allow to cool before testing.



IHC staining of FFPE human tonsil tissue with CD45RA antibody (clone T200/8144R). Inset: PBS used in place of primary Ab (secondary Ab negative control). HIER: boil tissue sections in pH 9 10mM Tris with 1mM EDTA for 20 min and allow to cool before testing.

Description

CD45RA antibody targets CD45RA, an alternatively spliced isoform of Protein tyrosine phosphatase receptor type C encoded by the PTPRC gene. CD45 is expressed on nearly all nucleated hematopoietic cells and functions as a key regulator of antigen receptor signaling. The CD45RA isoform is primarily associated with naive CD4+ and CD8+ T cells, where it contributes to the regulation of T cell receptor signaling intensity and activation thresholds. CD45RA antibody enables differentiation between naive and memory T cell subsets in lymphoid tissues and peripheral blood.

The CD45 molecule consists of a heavily glycosylated extracellular domain, a transmembrane region, and tandem intracellular phosphatase domains. Alternative splicing of exons 4, 5, and 6 produces distinct isoforms including CD45RA, CD45RB, and CD45RO. CD45RA antibody detects the exon A-containing isoform, which is characteristically expressed on resting naive T lymphocytes. Upon antigen exposure and differentiation into memory cells, expression shifts toward CD45RO.

Abnormal expression patterns of CD45 isoforms have been observed in leukemias, lymphomas, and immune dysregulation syndromes. CD45RA antibody is a valuable tool for characterizing immune cell subsets in research studies involving adaptive immunity, transplantation biology, and tumor immunology.

CD45RA is an alternatively spliced form of PTPRC widely studied in lymphocyte differentiation and immune cell phenotyping; learn more about the target and related reagents on our CD45RA Antibody page.

Application Notes

Optimal dilution of the CD45RA antibody should be determined by the researcher.

Immunogen

Recombinant full-length human PTPRC protein was used as the immunogen for the CD45RA antibody.

Storage

Aliquot the CD45RA antibody and store frozen at -20oC or colder. Avoid repeated freeze-thaw cycles.

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