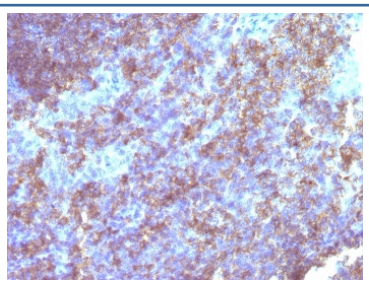
CD45 Antibody [clone Bra55] (V3963)

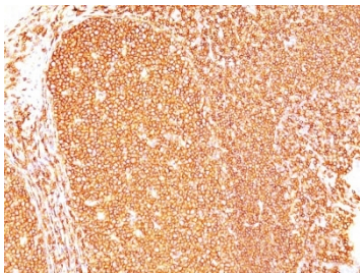
Catalog No.	Formulation	Size
V3963-100UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced) and 0.05% sodium azide	100 ug
V3963-20UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced) and 0.05% sodium azide	20 ug
V3963SAF-100UG	1 mg/ml in 1X PBS; BSA free, sodium azide free	100 ug

Bulk quote request

Species Reactivity	Human
Format	Purified
Clonality	Monoclonal (mouse origin)
Isotype	Mouse IgG1, kappa
Clone Name	Bra55
Purity	Protein G affinity chromatography
UniProt	P08575
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 is available for research use only.



IHC staining of FFPE human tonsil tissue with CD45 antibody. HIER: boil tissue sections in pH 9 10mM Tris with 1mM EDTA for 20 min and allow to cool before testing.



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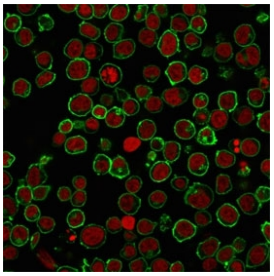
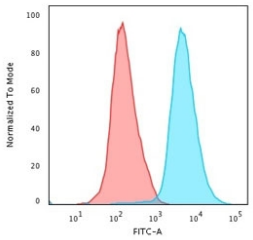
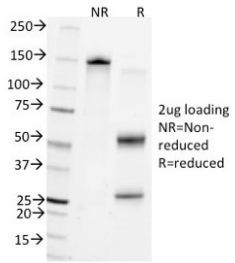


Immunofluorescent staining of PFA-fixed human Jurkat cells with CD45 antibody (clone BRA55, green) and Reddot nuclear stain (red).



Flow cytometry testing of PFA-fixed human Jurkat cells with CD45 antibody (clone BRA55); Red=isotype control, Blue= CD45 antibody.



SDS-PAGE analysis of purified, BSA-free CD45 antibody (clone Bra55) as confirmation of integrity and purity.

Description

CD45, also referred to as CD45R and PTPRC (Protein tyrosine phosphatase receptor type C), has been identified as a transmembrane glycoprotein, broadly expressed among hematopoietic cells. Along with other members of the PTP family, it regulates a number of cellular processes including cell differentiation, growth and mitotic cycle, and is an essential regulator of B- and T-cell antigen receptor-mediated activation.

Multiple isoforms of CD45 are distributed throughout the immune system and arise due to alternative splicing of exons located in the N-terminus. CD45RA contains the A exon and is a naive T-cell marker which may help prevent autoimmune disease. CD45RB contains B and stains most leukemias and lymphomas. CD45RC contains C and stains thymocytes, monocytes and dendritic cells. CD45RO doesn't contain A, B or C and is a marker of activated T-cells that can be used to classify and diagnose and classify lymphomas. Clone 2B11 antibody will bind to all CD45 isoforms. The variation in these isoforms is localized to the extracellular domain, with the intracellular domain being conserved. Antibody to CD45 is useful in differential diagnosis of lymphoid tumors from non-hematopoietic undifferentiated neoplasms.

Application Notes

Due to variation in protocol and secondary antibody used, the CD45 antibody may need to be titered for optimal performance.

Immunogen

REH cells (a non-T, non-B acute lymphoblastic leukaemia cell line) were used as the immunogen for the CD45 antibody.

Storage

CD45 antibody (with azide) can be stored at 2-8oC. The azide-free format should be aliquoted and stored at -20oC or colder.

References (2)