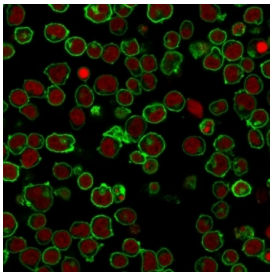
CD45 Antibody [clone PTPRC/1461] (V3291)

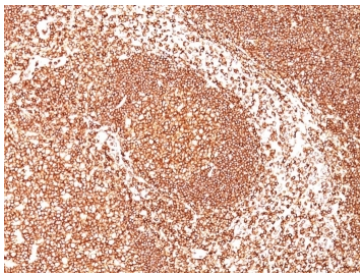
Catalog No.	Formulation	Size
V3291-100UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced) and 0.05% sodium azide	100 ug
V3291-20UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced) and 0.05% sodium azide	20 ug
V3291SAF-100UG	1 mg/ml in 1X PBS; BSA free, sodium azide free	100 ug

Bulk quote request

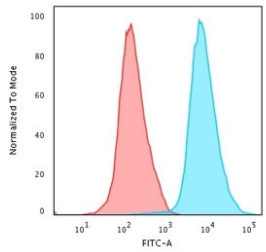
Species Reactivity	Human
Format	Purified
Host	Mouse
Clonality	Monoclonal (mouse origin)
Isotype	Mouse IgG2a, kappa
Clone Name	PTPRC/1461
Purity	Protein G affinity chromatography
Buffer	1X PBS, pH 7.4
UniProt	P08575
Localization	Cell surface and cytoplasmic
Applications	Flow cytometry: 1-2ug/10^6 cells Immunofluorescence: 1-2ug/ml Immunohistochemistry (FFPE): 1-2ug/ml for 30 min at RT
Limitations	This CD45 antibody is available for research use only.



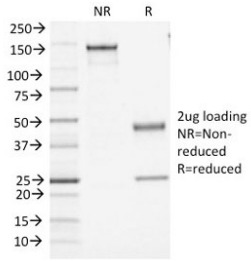
Immunofluorescent staining of PFA-fixed human Jurkat cells with CD45 antibody (clone PTPRC/1461, green) and Reddot nuclear stain (red).



IHC staining of FFPE human tonsil with CD45 antibody (clone PTPRC/1461). HIER: boil tissue sections in pH 9 10mM Tris with 1mM EDTA for 20 min and allow to cool before testing.



Flow cytometry testing of PFA-fixed human Jurkat cells with CD45 antibody (clone PTPRC/1461); Red=isotype control, Blue= CD45 antibody.



SDS-PAGE Analysis of Purified, BSA-Free CD45 Antibody (clone PTPRC/1461). Confirmation of Integrity and Purity of the Antibody.

Description

CD45R, also designated CD45 and PTPRC, has been identified as a transmembrane glycoprotein, broadly expressed among hematopoietic cells. Multiple isoforms of CD45R are distributed throughout the immune system according to cell type. These isoforms arise because of alternative splicing of exons 4, 5, and 6. The corresponding protein domains are characterized by the binding of monoclonal antibodies specific for CD45RA (exon 4), CD45RB (exon 5), CD45RC (exon 6) and CD45RO (exons 4 to 6 spliced out). The variation in these isoforms is localized to the extracellular domain of CD45R, while the intracellular domain is conserved. CD45R functions as a phosphor-tyrosine phosphatase. Antibody to CD45 is useful in differential diagnosis of lymphoid tumors from non-hematopoietic undifferentiated neoplasms.

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 may need to be titered for optimal performance.

Immunogen

Human B lymphocytes 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)

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