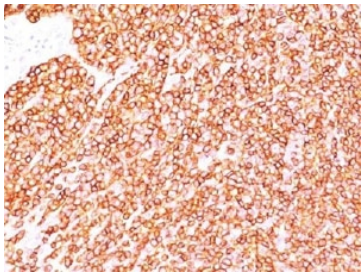
Anti-CD45 Antibody [clone SPM570] (V2401)

Catalog No.	Formulation	Size
V2401-100UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced) and 0.05% sodium azide	100 ug
V2401-20UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced) and 0.05% sodium azide	20 ug
V2401SAF-100UG	1 mg/ml in 1X PBS; BSA free, sodium azide free	100 ug
V2401IHC-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 IgG1, kappa
Clone Name	SPM570
Purity	Protein G affinity chromatography
UniProt	P08575
Localization	Cell surface and cytoplasmic
Applications	Immunohistochemistry (FFPE): 1-2ug/ml for 30 min at RT (1) (2)
Limitations	This anti-CD45 antibody is available for research use only.



IHC testing of FFPE human tonsil with anti-CD45 antibody (clone SPM570).

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. This 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.

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 anti-CD45 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

Neoplastic cells from a T cell lymphoma were used as the immunogen for the anti-CD45 antibody.

Storage

Anti-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)

Copyright © NSJ Bioreagents. All rights reserved.