

CD45RB; Clone PD7/26

| Catalog Number | Format | Volume |
|----------------|----------------|--------|
| A00130-0002 | (Ready-To-Use) | 2 ml |
| A00130-0007 | (Ready-To-Use) | 7 ml |
| A00130-0025 | (Ready-To-Use) | 25 ml |
| A00130-C | (Concentrate) | 1 ml |

Intended Use

For In-Vitro Diagnostic Use. This antibody is intended for the qualitative visualization of the anatomical elements listed in the Specificity section. It is intended to be used within an Immunohistochemistry (IHC) procedure on formalin-fixed paraffin-embedded (FFPE) human tissue followed by visualization by light microscopy.

Description

Titer/Working Dilution: Ready-to-Use: No further dilution required.

Concentrate: Suggested dilution is 1:100-200

Species:

Mouse

Immunogen:

Neoplastic cells isolated from T-Cell lymphoma were used as the immunogen to raise antibody to CD45.

Clone:

PD7/26

Isotype:

Mouse IgG1

Mol. Wt. of Antigen:

220 kDa

Format:

Ready-To-Use antibody has been pre-titrated and quality controlled to work on formalin-fixed paraffin-embedded as well as acetone fixed cryostat tissue sections. No further titration is required.

Concentrate antibody is provided in a phosphate buffer saline containing 1% BSA.

Specificity:

This antibody is specific for hematopoietic cells, including basophils, granulocytes, lymphocytes, macrophages/histiocytes, mast cells, monocytes, plasma cells; NOT mature red blood cells and their immediate progenitors, platelets or megakaryocytes, dendritic cells, medullary thymocytes. CD45RB is highly expressed on memory B cells and plasmablasts but not on naïve B cells, Langerhans cells and some T cells, B cells, monocytes, macrophages, granulocytes.

Background:

CD45RB is an isoform of CD45 with exon 5 splicing (encodes B cell determinant). It is a 220 kD glycoprotein expressed on peripheral B cells, naïve T cells, thymocytes, weakly on macrophages, and dendritic cells. It plays a critical role in TCR and BCR signaling. CD45RB expression is downregulated upon activation of T cells and maturation from naïve to memory cells. Additionally, functionally distinct CD4+ T cell subsets, which secrete differing cytokine profiles, can be separated by CD45RB intensity. The primary ligands for CD45 are galectin-1, CD2, CD3, CD4 and Thy-1. CD45RB expression also refines delineation of memory CD4 T cells and aids in understanding their development. CD45RB also identify and quantitate naïve, effector and memory cells in lymphoid and non-lymphoid organs.

Species Reactivity:

Human. Others not known.

Positive Control:

Tonsil.

Cellular Localization:

Cell membrane / Membrane raft.

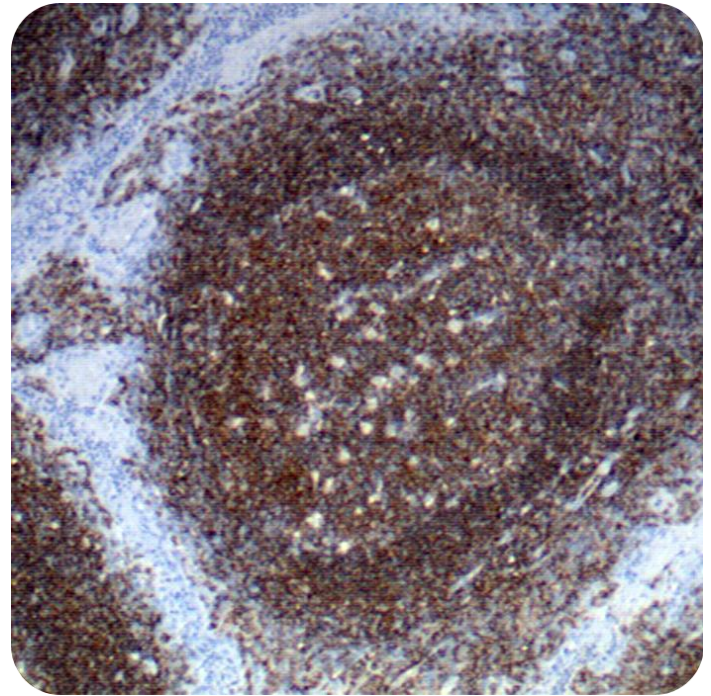
Microbiological State:

Nonsterile

Materials and Reagents Required but not Provided

- Control tissue and reagents
- Xylene, graded alcohols, and deionized/distilled water
- Antibody Diluent.
- IHC detection system. Suggested: ScyTek Cat# ABZ125 "CRF Anti-Polyvalent HRP Polymer" and ScyTek Cat# ACV500 "DAB Chromogen/Substrate Kit (High Contrast)".
- Wash buffer for rinses (ScyTek Cat# TBT500)
- HIER Retrieval Solution
- Hematoxylin counterstain and bluing reagent (ScyTek Cat# HMM500 and BRT500)
- Mounting medium and coverslips

Note: ScyTek Laboratories has a wide range of IHC reagents and ancillaries that can be found at scytek.com.




Human Tonsil stained with Ultra-Tek HRP and DAB Chromogen.


Procedure

1. **Tissue Section Pretreatment (Highly Recommended):** Staining of formalin fixed paraffin embedded tissue sections is significantly enhanced by pretreatment with Tis-EDTA HIER Solution (10x) pH 9.0 (ScyTek catalog# TES500) or Citrate Plus (10x) HIER Solution (ScyTek catalog# CPL500)

2. **Primary Antibody Incubation Time:** We suggest an incubation period of 30 minutes at room temperature. However, depending upon the fixation conditions and the staining system employed, optimal incubation should be determined by the user.

3. **Visualization:** For maximum staining intensity we recommend the "CRF Anti-Polyvalent HRP Polymer" (ScyTek catalog# ABZ125, see IFU for instructions) combined with the "DAB Chromogen/Substrate Bulk Pack (High Contrast)" (ScyTek catalog# ACV500, see IFU for instructions).

Storage: 2° C  8° C

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Storage and Stability

Do not Freeze. Store at 2-8°C. Return to 2-8° immediately after use. Do not use after expiration date printed on label. Verify visually that antibody has not been contaminated before use. Do not use if reagent becomes cloudy or precipitates.

Limitations

Immunohistochemistry is a complex technique involving both histological and immunological detection methods. Tissue processing and handling prior to immunostaining can cause inconsistent results. Variations in fixation and embedding or the inherent nature of the tissue specimen may cause variations in results. Endogenous peroxidase activity or pseudoperoxidase activity in erythrocytes and endogenous biotin may cause non-specific staining depending on detection system used. This data sheet's recommendations and procedures were validated using ScyTek IHC reagents and may not be suitable for other detection systems.

Precautions

1. Contains Sodium Azide as a preservative (0.09% w/v), do not ingest. Sodium Azide may react with lead and copper plumbing to form highly explosive metal azides. Upon disposal, flush with large volumes of water to prevent azide build-up in plumbing. This product contains no hazardous material at a reportable concentration according to U.S. 29 CFR 1910.1200, OSHA Hazardous Communication Standard and EC Directive 91/155/EC.
2. Do not pipette by mouth.
3. Avoid contact of reagents and specimens with skin and mucous membranes.
4. Avoid microbial contamination of reagents or increased nonspecific staining may occur.
5. The user must validate any procedures and recommendations that differ from this data sheet.
6. The SDS may be found at scytek.com


References

1. Altin JG, Sloan EK. The role of CD45 and CD45-associated molecules in T cell activation. Immunol Cell Biol. 1997;75(5):430-45.
2. Dahlke MH, Larsen SR, Rasko JE, Schlitt HJ. The biology of CD45 and its use as a therapeutic target. Leuk Lymphoma. 2004;45(2):229-36.
3. Penninger JM, Irie-Sasaki J, Sasaki T, Oliveira-dos-Santos AJ. CD45: new jobs for an old acquaintance. Nat Immunol. 2001;2(5):389-96.
4. Tchilian EZ, Beverley PC. CD45 in memory and disease. Arch Immunol Ther Exp (Warsz). 2002;50(2):85-93.

Warranty

No products or "Instructions For Use (IFU)" are to be construed as a recommendation for use in violation of any patents. We make no representations, warranties or assurances as to the accuracy or completeness of information provided on our IFU or website. Our warranty is limited to the actual price paid for the product. ScyTek Laboratories, Inc. is not liable for any property damage, personal injury, time or effort or economic loss caused by our products.

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