P.O. Box 3286 - Logan, Utah 84323, U.S.A. - Tel. (800) 729-8350 – Tel. (435) 755-9848 - Fax (435) 755-0015 - www.scytek.com

CD45RA (LCA); Clone 158-4D3
(Ready-To-Use)

Availability/Contents:

Item #	Volume
A00123-0002	2 ml
A00123-0007	7 ml
A00123-0025	25 ml

Description:

Species:	Mouse
Immunogen:	Stimulated human leukocytes were used as immunogen to generate the CD45RA antibody.
Clone:	158-4D3
Isotype:	Mouse IgG2a, Kappa
Format:	This antibody has been pretitered and quality controlled to work on formalin-fixed paraffin-embedded as well as acetone fixed cryostat tissue sections. No further titration is required.
Specificity:	The CD45RA 158-4D3 antibody clone reacts with the ABC and BC isoforms (Schlossman et al, 1995). CD45RA has a molecular weight of 205-220 kDa.

Background:

CD45 (leukocyte common antigen), the most common hematopoietic lineage marker, is a transmembrane glycoprotein tyrosine phosphatase with important roles in immune system signal transduction pathways. Antibody panels have been instrumental in identifying multiple isoforms, including CD45RA. Isoforms differ in their extracellular domain and are generated by alternative splicing of exons 4, 5 and 6 encoding peptide segments called A, B, and C, respectively. At least five different isoforms have been identified in humans: containing all three (ABC), two (AB and BC), one (B) or no (O) exons. A given antibody recognizes either every isoform (CD45 antibody) or only a subset ("restricted" CD45R antibody). The CD45RA 158-4D3 antibody clone reacts with the ABC and BC isoforms (Schlossman et al, 1995). CD45RA has a molecular weight of 205-220 kDa.

Isoform expression is regulated in lymphocyte type and activation-state dependent manners. CD45RA is expressed on subsets of T and B cells rendering the CD45RA antibody particularly useful for studying subpopulations. For example, naïve T lymphocytes express CD45RA containing the A exon which is lost after activation and replaced by CD45R0. In this regard, the CD45RA antibody is a useful naïve T cells marker since they express CD45RA, and activated or memory T cells are CD45RA negative and CD45RO positive (Schlossman et al, 1995). CD45RA is differentially expressed on lymphomas and the CD45RA antibody may also be used to help identify or classify lymphomas such as the CD45RA positive B from the CD45R0 positive T cell lymphomas. Researchers are encouraged to consult the scientific literature for additional information about CD45RA expression, including the use of antibody panels that include a CD45RA antibody for characterizing a given malignancy.

Species Reactivity:	Human. Others not tested.
Positive Control:	Tonsil, Spleen.
Titer/Working Dilution:	No further dilution is required.
Microbiological State:	This product is not sterile.

Storage: 2° C – 8° C

ScyTek Laboratories, Inc.
205 South 600 West
Logan, UT 84321
U.S.A.

CE IVD

EC REP EmergoEurope (31)(0) 70 345-8570
Molsnstraat 15
2513 BH Hague, The Netherlands

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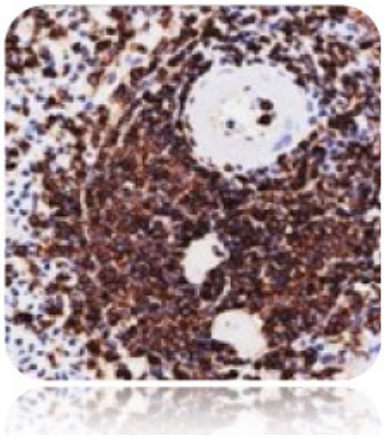
Uses/Limitations:

Not to be taken internally.
For In Vitro Diagnostic Use.
This product is intended for qualitative immunohistochemistry with normal and neoplastic formalin-fixed, paraffin-embedded tissue sections, to be viewed by light microscopy.
Do not use if reagent becomes cloudy.
Do not use past expiration date.
Use caution when handling reagents.
Non-Sterile.



Ordering Information and Current Pricing at www.scytek.com

Procedure:

1. **Tissue Section Pretreatment OPTIONAL:** Staining of formalin fixed, paraffin embedded tissue sections is enhanced by pretreatment with 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 "UltraTek HRP Anti-Polyvalent Lab Pack" (ScyTek catalog# UHP125, see IFU for instructions) combined with the "DAB Chromogen/Substrate Bulk Pack (High Contrast)" (ScyTek catalog# ACV500, see IFU for instructions).

Precautions:

Contains Sodium Azide as a preservative (0.09% w/v).
Do not pipette by mouth.
Avoid contact of reagents and specimens with skin and mucous membranes.
Avoid microbial contamination of reagents or increased nonspecific staining may occur.
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.

References:

1. Shin H-M et al. Immune Network 11:114-122 (2011).
2. Clement LT. J Clin Immunol 12:1-10 (1992).
3. Saunders AE, P Johnson. Cellular Signaling 22:339-348 (2010)
4. Jacob MC et al. Am J Hematol 39:45-51 (1992).
5. Mahalingam M et al. Clin Immunol Immunopathol 81:210-214 (1996).
6. Schlossman S et al. Leukocyte Type V, Oxford University Press, Oxford, 511-515 (1995).
7. Yamada et al. Cell Immunol 142:210-214 (1992).

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. 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.

Storage: 2° C 8° C

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