

## Product Datasheet

### CD45RA Antibody (orb248519)

<b>Catalog Number</b>	orb248519
<b>Category</b>	Antibodies
<b>Description</b>	<p>This antibody recognizes a protein of 205kDa-220kDa, identified as CD45RA, an isoform of the human leukocyte common antigen (CD45). Human CD45 contains three exons which encode peptide segments designated A, B and C. The differential splicing of the exons generates at least five isoforms, ABC, AB, BC, B and O. This antibody reacts with ABC and BC isoforms. CD45RA is expressed on 40-50% of peripheral CD4+ T cells, 50% of peripheral CD8+ T-cells, B-cells, and leukemic B-cell lines. T-cells expressing CD45RA are naive or virgin T cells. T-cells expressing CD45RO are memory T cells. CD45RA and CD45RO define complementary, predominantly non-overlapping populations of resting peripheral T cells. This CD45RA antibody is useful in the study of the subpopulation of CD4+ or CD8+ T-cells. It is especially useful in differentiating T-cell lymphomas (CD45RO +ve) from B cell lymphomas (CD45RA +ve).</p>
<b>Clonality</b>	Monoclonal
<b>Species/Host</b>	Mouse
<b>Isotype</b>	Mouse IgG2a, kappa
<b>Conjugation</b>	Unconjugated
<b>Reactivity</b>	Human
<b>Buffer/Preservatives</b>	0.2 mg/ml in 1X PBS with 0.1 mg/ml rAlbumin and 0.05% sodium azide
<b>Purification</b>	Protein G affinity chromatography
<b>Immunogen</b>	Stimulated human leukocytes were used as the immunogen for this CD45RA antibody.
<b>Tested applications</b>	FACS, IF, IHC-P, WB

**Biorbyt Ltd.**

7 Signet Court, Swann Road  
Cambridge  
CB5 8LA  
United Kingdom

Email: [info@biorbyt.com](mailto:info@biorbyt.com), [support@biorbyt.com](mailto:support@biorbyt.com)

Phone: [+44 \(0\)1223 859353](tel:+44(0)1223859353) | Fax: [+1 \(415\) 651-8558](tel:+1(415)651-8558)

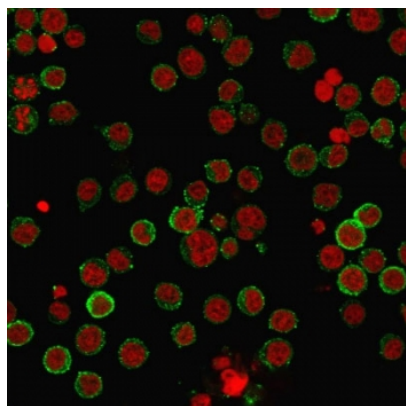
**Biorbyt LLC**

68 TW Alexander Drive  
Research Triangle Park  
Durham  
NC 27713-2847  
United States

Email: [info@biorbyt.com](mailto:info@biorbyt.com), [support@biorbyt.com](mailto:support@biorbyt.com)

Phone: [+1 \(415\) 906-5211](tel:+1(415)906-5211) | Fax: [+1 \(415\) 651-8558](tel:+1(415)651-8558)

<b>Dilution range</b>	Flow cytometry: 1-2ug/10 <sup>6</sup> cells, Immunofluorescence: 1-2ug/ml, Western blot: 1-2ug/ml, Immunohistochemistry (FFPE): 1-2ug/ml for 30 min at RT
<b>Application notes</b>	The concentration stated for each application is a general starting point. Variations in protocols, secondaries and substrates may require the CD45RA antibody to be titered up or down for optimal performance.1. 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.
<b>Antibody Type</b>	Primary Antibody
<b>Clone Number</b>	158-4D3
<b>Storage</b>	Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.
<b>Note</b>	For research use only
<b>Expiration Date</b>	12 months from date of receipt.



Immunofluorescent staining of PFA-fixed human Raji cells with CD45RA antibody (clone 158-4D3, green) and Reddot nuclear stain (red).

**Biorbyt Ltd.**

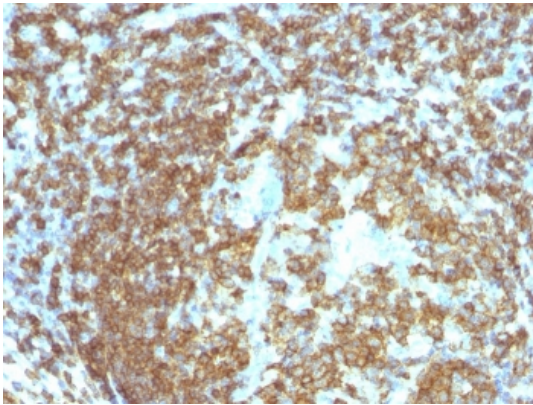
7 Signet Court, Swann Road  
Cambridge  
CB5 8LA  
United Kingdom

Email: [info@biorbyt.com](mailto:info@biorbyt.com), [support@biorbyt.com](mailto:support@biorbyt.com)  
Phone: [+44 \(0\)1223 859353](tel:+44(0)1223859353) | Fax: [+1 \(415\) 651-8558](tel:+1(415)651-8558)

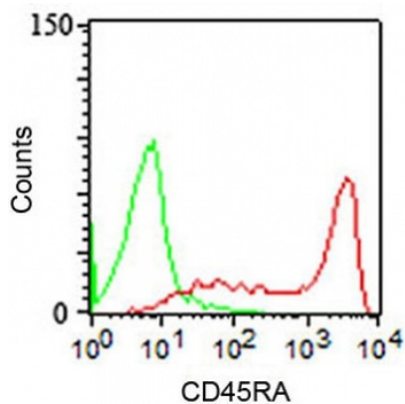
**Biorbyt LLC**

68 TW Alexander Drive  
Research Triangle Park  
Durham  
NC 27713-2847  
United States

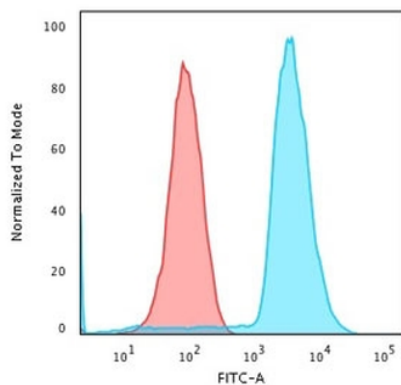
Email: [info@biorbyt.com](mailto:info@biorbyt.com), [support@biorbyt.com](mailto:support@biorbyt.com)  
Phone: [+1 \(415\) 906-5211](tel:+1(415)906-5211) | Fax: [+1 \(415\) 651-8558](tel:+1(415)651-8558)



IHC staining of FFPE human tonsil with CD45RA antibody (clone 158-4D3). HIER: steam section in pH6 citrate buffer for 20 min and allow to cool prior to staining.



FACS surface staining of human PBMCs using CD45RA antibody (clone 158-4D3, red), and isotype control (green).



Flow cytometry testing of human Jurkat cells with CD45RA antibody (clone 158-4D3); Red = isotype control, Blue = CD45RA antibody.

**Biorbyt Ltd.**

7 Signet Court, Swann Road  
Cambridge  
CB5 8LA  
United Kingdom

Email: [info@biorbyt.com](mailto:info@biorbyt.com), [support@biorbyt.com](mailto:support@biorbyt.com)

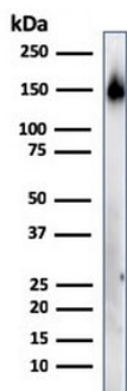
Phone: +44 (0)1223 859353 | Fax: +1 (415) 651-8558

**Biorbyt LLC**

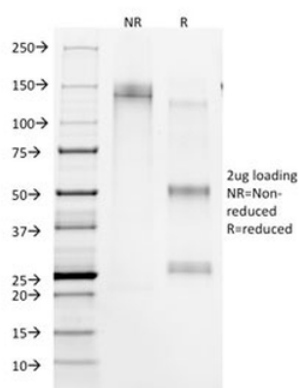
68 TW Alexander Drive  
Research Triangle Park  
Durham  
NC 27713-2847  
United States

Email: [info@biorbyt.com](mailto:info@biorbyt.com), [support@biorbyt.com](mailto:support@biorbyt.com)

Phone: +1 (415) 906-5211 | Fax: +1 (415) 651-8558



Western blot testing of human spleen lysate with CD45RA antibody (clone 158-4D3). Expected molecular weight: 147-220 kDa depending on glycosylation level.



SDS-PAGE analysis of purified, BSA-free CD45RA antibody (clone 158-4D3) as confirmation of integrity and purity.

**Biorbyt Ltd.**

7 Signet Court, Swann Road  
Cambridge  
CB5 8LA  
United Kingdom

Email: [info@biorbyt.com](mailto:info@biorbyt.com), [support@biorbyt.com](mailto:support@biorbyt.com)

Phone: +44 (0)1223 859353 | Fax: +1 (415) 651-8558

**Biorbyt LLC**

68 TW Alexander Drive  
Research Triangle Park  
Durham  
NC 27713-2847  
United States

Email: [info@biorbyt.com](mailto:info@biorbyt.com), [support@biorbyt.com](mailto:support@biorbyt.com)

Phone: +1 (415) 906-5211 | Fax: +1 (415) 651-8558