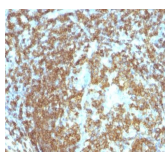


# CD45RA Monoclonal Mouse Antibody (158-4D3)



## Product Description

Recognizes a protein of 205 kDa-220 kDa, identified as CD45RA (Workshop III). CD45RA is isoforms of the human leukocyte common antigen (CD45). Human CD45 contains three exons which encode peptide segments designated A, B and C, respectively. 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 MAb is useful in study on the subpopulation of CD4 or CD8 T-cells. It can especially be used to differentiate T-cell lymphomas (CD45RO positive) from B cell lymphomas (CD45RA positive).

Primary antibodies are available purified, or with a selection of fluorescent CF® dyes and other labels. CF® dyes offer exceptional brightness and photostability. See the [CF® Dye Brochure](#) for more information. Note: Conjugates of blue fluorescent dyes like CF®405S and CF®405M are not recommended for detecting low abundance targets, because blue dyes have lower fluorescence and can give higher non-specific background than other dye colors.

**Stock status:** Because Biotium offers a large number of antibody and conjugation options, primary antibody conjugates may be made to order. Typical lead times are up to one week for CF® dye and biotin conjugates, and up to 2-3 weeks for fluorescent protein and enzyme conjugates. Please email [order@biotium.com](mailto:order@biotium.com) to inquire about stock status and lead times before placing your order.

**Catalog number key for antibody number 0028, Anti-CD45RA (158-4D3)**

## Product attributes

|                                       |   |
|---------------------------------------|---|
| Antibody number                       | #0028   |
| Antibody reactivity (target)          | CD45RA  |
| Antibody type                         | Primary   |
| Host species                          | Mouse   |
| Clonality                             | Monoclonal  |
| Clone                                 | 158-4D3   |
| Isotype                               | IgG2a, kappa  |
| Molecular weight                      | 205-220 kDa   |
| Synonyms                              | B220, CD45R, GP180, Leukocyte common antigen (LCA), Loc, Ly-5, Lyl-4, Protein tyrosine phosphatase receptor type C (PTPRC), Receptor-type tyrosine-protein phosphatase C, T200 glycoprotein   |
| Human gene symbol                     | PTPRC   |
| Entrez gene ID                        | 5788  |
| SwissProt                             | P08575  |
| Unigene                               | 654514  |
| Immunogen                             | Stimulated human leukocytes   |
| Antibody target cellular localization | Plasma membrane   |
| Verified antibody applications        | Flow (verified), IF (verified), IHC (FFPE) (verified), WB (verified)  |
| Species reactivity                    | Human   |
| Antibody application notes            | Higher concentration may be required for direct detection using primary antibody conjugates than for indirect detection with secondary antibody, Immunofluorescence: 1-2 ug/mL, Immunohistology formalin-fixed 0.5-1 ug/mL, Staining of formalin-fixed tissues requires boiling tissue sections in 10 mM citrate buffer, pH 6.0, for 10-20 min followed by cooling at RT for 20 minutes, Flow Cytometry 0.5-1 ug/million cells/0.1 mL, Optimal dilution for a specific application should be determined by user |
| Positive control                      | Daudi, Raji, IM9 and human lymphocytes. Human lymph nodes and tonsils.  |
| Shipping condition                    | Room temperature  |
| Storage Conditions                    | Store at 2 to 8 °C, Protect fluorescent conjugates from light, Note: store BSA-free antibodies at -10 to -35 °C   |
| Shelf life                            | Guaranteed for at least 24 months from date of receipt when stored as recommended   |
| Regulatory status                     | For research use only (RUO)   |
| Antibody/conjugate formulation        | Conjugates: 0.1 mg/mL in PBS/0.1% BSA/0.05% azide, HRP conjugates: 0.1 mg/mL in PBS/0.05% BSA, Purified: 0.2 mg/mL in PBS/0.05% BSA/0.05% azide, Purified, BSA-free: 1 mg/mL in PBS without azide   |
| Antibody research areas               | Immunology, Signal transduction   |
| Product origin                        | Product may contain either bovine serum albumin (BSA) from bovine serum (Bos taurus), or recombinant BSA produced in Chinese hamster ovary cells. Inquire for the specific lot.   |
| Cell/tissue expression                | B-cells, T-cells  |
| Tumor expression                      | Leukemia/lymphoma   |

| Antibody # prefix | Conjugation        | Ex/Em (nm) | Laser line | Detection channel        | Dye Features                     |
|-------------------|--------------------|------------|------------|--------------------------|----------------------------------|
| BNC04             | CF®405S            | 404/431    | 405        | DAPI (microscopy), AF405 | <a href="#">CF®405S Features</a> |
| BNC88             | CF®488A            | 490/515    | 488        | GFP, FITC                | <a href="#">CF®488A Features</a> |
| BNC68             | CF®568             | 562/583    | 532, 561   | RFP, TRITC               | <a href="#">CF®568 Features</a>  |
| BNC94             | CF®594             | 593/614    | 561        | Texas Red®               | <a href="#">CF®594 Features</a>  |
| BNC40             | CF®640R            | 642/662    | 633-640    | Cy®5                     | <a href="#">CF®640R Features</a> |
| BNC47             | CF®647             | 650/665    | 633-640    | Cy®5                     | <a href="#">CF®647 Features</a>  |
| BNC74             | CF®740             | 742/767    | 633-685    | 775/50                   | <a href="#">CF®740 Features</a>  |
| BNCB              | Biotin             | N/A        | N/A        | N/A                      |                                  |
| BNUB              | Purified           | N/A        | N/A        | N/A                      |                                  |
| BNUM              | Purified, BSA-free | N/A        | N/A        | N/A                      |                                  |

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