

**PE anti-human CD45RO**

**Catalog # / Size:** 2484015 / 25 tests  
2484020 / 100 tests

**Clone:** S19021B

**Isotype:** Mouse IgG1,  $\lambda$

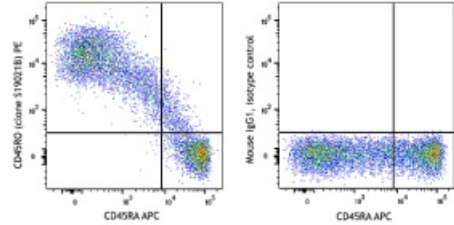
**Immunogen:** Synthetic human CD45 peptide spanning the junction region between exons 3 and 7.

**Reactivity:** Human

**Preparation:** The antibody was purified by affinity chromatography and conjugated with PE under optimal conditions.

**Formulation:** Phosphate-buffered solution, pH 7.2, containing 0.09% sodium azide and 0.2% (w/v) BSA (origin USA)

**Concentration:** Lot-specific



Human peripheral blood lymphocytes were stained with anti-human CD45RA APC and anti-human CD45RO (clone S19021B) PE (left) or mouse IgG1 PE isotype control (right). Cells were costained with anti-human CD3 FITC; and data shown were from CD3+ population.

**Applications:**

**Applications:** Flow Cytometry

**Recommended Usage:** Each lot of this antibody is quality control tested by immunofluorescent staining with flow cytometric analysis. For flow cytometric staining, the suggested use of this reagent is 5  $\mu$ L per million cells in 100  $\mu$ L staining volume or 5  $\mu$ L per 100  $\mu$ L of whole blood. It is recommended that the reagent be titrated for optimal performance for each application.

**Application Notes:** The S19021B antibody can be used in combination with antibodies against CD45RA to discern memory and naïve T cells. Staining profile by S19021B on human peripheral blood lymphocyte is comparable to that by clone UCHL1.

Staining signal by clone S19021B on target cells can be completely blocked by pre-incubation with clone UCHL1; staining of UCHL1 on target cells can be partially blocked by pre-incubation with clone S19021B.

Staining signal by clone S19021B can be significantly increased on the cells after neuraminidase treatment, suggesting that S19021B binding epitope is likely affected by glycosylation.

**Description:** CD45RO is a 180 kD single chain membrane glycoprotein. It is a splice variant of tyrosine phosphatase CD45, lacking the A, B, and C determinants. The CD45RO isoform is expressed on activated and memory T cells, some B cell subsets, activated monocytes/macrophages, and granulocytes. CD45RO enhances both T cell receptor and B cell receptor signaling mediated activation. CD45 and its isoforms non-covalently associate with lymphocyte phosphatase-associated phosphoprotein (LPAP) on T and B lymphocytes. CD45 has been reported to be associated with several other cell surface antigens including CD1, CD2, CD3, and CD4. CD45 has also been reported to bind galectin-1 and CD22. CD45 isoform expression can change in response to cytokines.

**Antigen** 1. Thomas M. 1989. *Annu Rev Immunol.* 7:339.  
**References:** 2. Trowbridge I, *et al.* 1994. *Annu Rev Immunol.* 12:85.