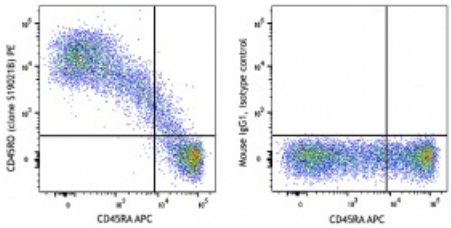
SONY

Product Data Sheet

PE anti-human CD45RO

Catalog # / Size:	2484020 / 100 tests 2484015 / 25 tests
Clone:	S19021B
Isotype:	Mouse IgG1, λ
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)
Workshop Number:	HCDM listed
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 µL per million cells in 100 µL staining volume or 5 µL per 100 µL 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.
Application References:	1. Costes V, *et al.* 1999. *Hum. Pathol.* 30:1405. (IF) 2. Gattei V, *et al.* 1999. *Br. J. Haematol.* 104:152. (WB) 3. Bologna-Molina R, *et al.* 2008. *Oral Oncol.* 44:805. (IHC) 4. Itoua MR, *et al.* 2014. *Biomed. Res. Int.* 2014:536482.

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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 References:

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