

Product datasheet for **CL029P**

CD45 / LCA (CD45RB) Rat Monoclonal Antibody [Clone ID: 16A]

Product data:

Product Type:	Primary Antibodies
Clone Name:	16A
Applications:	FC, IHC, IP
Recommended Dilution:	Immunohistochemistry on acetone-fixed frozen sections and paraffin embedded sections. Immunoprecipitation. Flow cytometry (for details see "Specificity" and "Protocols" below).
Reactivity:	Mouse
Host:	Rat
Isotype:	IgG2a
Clonality:	Monoclonal
Immunogen:	TH2 cell clones, final boost with TH2 clone D10
Specificity:	Anti-CD45RB monoclonal antibody reacts with the CD45 isoform containing the exon B dependent epitope. CD45RB is highly expressed on peripheral B cells, cytotoxic T cells, a subset of T helper cells and most thymocytes. <u>Tissue distribution by flow cytometry analysis:</u> Mouse strain: BALB/c Cell concentration : 1x10e6 cells per test Antibody dilution used: 50 µl at 1/5000/10e6 cells Isotypic control: Rat IgG2a <u>Cell source / Percentage of cells stained above control:</u> Thymus / 81.1% Spleen / 63.0% Lymph Node / 74.1%
Formulation:	PBS containing 0.02% sodium azide State: Purified State: Liquid purified Ig fraction
Concentration:	lot specific
Purification:	Protein G chromatography



[View online »](#)

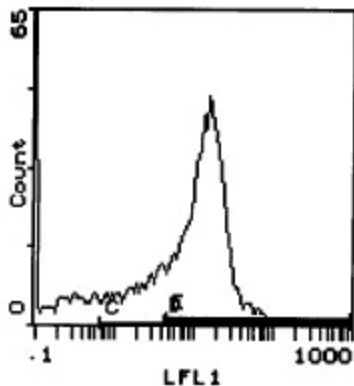
Conjugation:	Unconjugated
Storage:	Store the antibody undiluted at 2-8°C for one month or (in aliquots) at -20°C for longer. Avoid repeated freezing and thawing.
Stability:	Shelf life: one year from despatch.
Gene Name:	protein tyrosine phosphatase, receptor type, C
Database Link:	Entrez Gene 19264 Mouse P06800
Background:	CD45 is a family of single chain transmembrane glycoproteins consisting of at least four isoforms (220, 205, 190, 180 kDa) which share a common large intracellular domain. Their extracellular domains are heavily glycosylated. The different isoforms are produced by alternative messenger RNA splicing of three exons of a single gene on chromosome 1. CD45 is expressed on cells of the human hematopoietic lineage (including hematopoietic stem cells) with the exception of mature red cells. It is not detected on differentiated cells of other tissues. It is likely that CD45 plays an important role in signal transduction, inhibition or upregulation of various immunological functions. Antibodies recognising a common epitope on all of the isoforms are termed CD45 whilst those recognising only individual isoforms are termed CD45RA or CD45RO etc.
Synonyms:	PTPRC, Leukocyte common antigen, L-CA, T200

- Note:** Protocol: FLOW CYTOMETRY ANALYSIS:
Method:
1. Prepare a cell suspension in media A. For cell preparations, deplete the red blood cell population
 2. Wash 2 times.
 3. Resuspend the cells to a concentration of 2×10^7 cells/ml in media A. Add 50 μ l of this suspension to each tube (each tube will then contain 1×10^6 cells, representing 1 test).
 4. To each tube, add 50 μ l of a 1/2500-1/5000 dilution of CL029P.
 5. Vortex the tubes to ensure thorough mixing of antibody and cells.
 6. Incubate the tubes for 30 minutes at 4°C.
 7. Wash 2 times at 4°C.
 8. Add 100 μ l of secondary antibody (FITC Goat anti-rat IgG (H+L)) at a ~ 1/500 dilution.
 9. Incubate the tubes at 4°C for 30-60 minutes.
(It is recommended that the tubes are protected from light since most fluorochromes are light sensitive).
 10. Wash 2 times at 4°C in media B.
 11. Resuspend the cell pellet in 50 μ l ice cold media B.
 12. Transfer to suitable tubes for flow cytometric analysis containing 15 μ l of propidium iodide at 0.5 mg/ml in PBS. This stains dead cells by intercalating in DNA.

Media:

- A. Phosphate buffered saline (pH 7.2) + 5% normal serum of host species + sodium azide (100 μ l of 2M sodium azide in 100 mls).
- B. Phosphate buffered saline (pH 7.2) + 0.5% Bovine serum albumin + sodium azide (100 μ l of 2M sodium azide in 100 mls).

Product images:



Cell source: Spleen. Percentage of cells stained above control: 63.0%