

## Product datasheet for **SM034APC**

### CD45 / LCA (CD45R) Rat Monoclonal Antibody [Clone ID: RA3-6B2]

#### Product data:

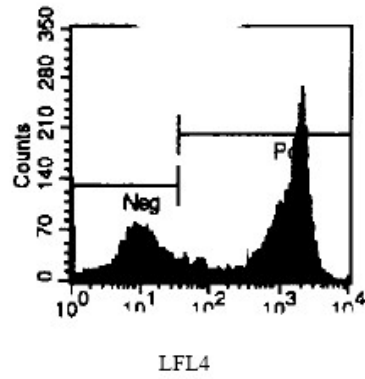
<b>Product Type:</b>	Primary Antibodies
<b>Clone Name:</b>	RA3-6B2
<b>Applications:</b>	FC, IHC, IP
<b>Recommended Dilution:</b>	Flow cytometry (for details please see specificity / protocols). Flow cytometry. Immunoprecipitation. Immunohistochemistry on frozen and paraffin sections.
<b>Reactivity:</b>	Mouse
<b>Host:</b>	Rat
<b>Isotype:</b>	IgG2a
<b>Clonality:</b>	Monoclonal
<b>Immunogen:</b>	Mouse pre-B tumour cells
<b>Specificity:</b>	This antibody reacts with an exon A-specific epitope on CD45 that is expressed on essentially all B cells and is maintained throughout B cell development (1,6). The RA3-6B2 epitope is expressed in a restricted manner by B cells; however, it is also present on lymphokine activated killer (LAK) cells (1). Although B220 has been widely used as a pan B cell marker, CD19 may be a more appropriate pan B cell marker, as expression of CD19 appears to be more closely restricted to B cells. It has been shown to potentiate isotype switching in B cells and to inhibit proliferative responses of B cell mitogens on B cells (7,8). This antibody immunoprecipitates the high molecular weight (220,000 Da) surface molecule of the leukocyte common antigen B220 on B cells (1). Tissue Distribution by Flow Cytometry Analysis: (Representative Histogram) Cell Concentration: 1x10e6 cells per test Antibody Concentration Used: 0.5 µg/10e6 cells Isotypic Control: APC Rat IgG2a.
<b>Formulation:</b>	PBS, 0.09% sodium azide (NaN <sub>3</sub> ) and EIA grade BSA as a stabilizing protein to bring total protein concentration to 4-5 mg/ml. Label: APC State: Liquid purified Ig fraction
<b>Concentration:</b>	lot specific



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<b>Conjugation:</b>	APC
<b>Storage:</b>	Store the antibody at 2 - 8 °C. DO NOT FREEZE! This product is photosensitive and should be protected from light.
<b>Stability:</b>	Shelf life: one year from despatch.
<b>Gene Name:</b>	protein tyrosine phosphatase, receptor type, C
<b>Database Link:</b>	<a href="#">Entrez Gene 19264 Mouse P06800</a>
<b>Background:</b>	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.
<b>Synonyms:</b>	PTPRC, Leukocyte common antigen, L-CA, T200
<b>Note:</b>	Protocol: FLOW CYTOMETRY ANALYSIS: <u>Method:</u> <ol style="list-style-type: none"><li>1. Prepare a cell suspension in media A. For cell preparations, deplete the red blood cell population.</li><li>2. Wash 2 times.</li><li>3. Re-suspend the cells to a concentration of 2x10<sup>7</sup> cells/ml in media A. Add 50 µl of this suspension to each tube (each tube will then contain 1 x 10<sup>6</sup> cells, representing 1 test).</li><li>4. To each tube, add ~0.5 µg of antibody per 10<sup>6</sup> cells.</li><li>5. Vortex the tubes to ensure thorough mixing of antibody and cells.</li><li>6. Incubate the tubes for 30 minutes at 4°C. (It is recommended that the tubes are protected from light, since most fluorochromes are light sensitive.)</li><li>7. Wash 2 times at 4°C.</li><li>8. Re-suspend the cell pellet in 50 µl ice cold media B.</li><li>9. Transfer to suitable tubes for flow cytometric analysis containing 15 µl of propidium iodide at 0.5 mg/ml in PBS. This stains dead cells by intercalating in DNA.</li></ol> <u>Media:</u> <ol style="list-style-type: none"><li>A. Phosphate buffered saline (pH 7.2) + 5% normal serum of host species + sodium azide (100 µl of 2M sodium azide in 100 mls).</li><li>B. Phosphate buffered saline (pH 7.2) + 0.5% Bovine serum albumin + sodium azide (100 µl of 2M sodium azide in 100 mls).</li></ol>

Product images:



Percentage of cells stained above control (R2) = 36.96%  
 Cell Source: Spleen