

## Monoclonal Antibody to CD45 / LCA (CD45.2 alloantigen) - FITC

<b>Alternate names:</b>	L-CA, Leukocyte common antigen, PTPRC, Receptor-type tyrosine-protein phosphatase C, T200
<b>Catalog No.:</b>	AM08063FC-N
<b>Quantity:</b>	0.5 mg
<b>Concentration:</b>	0.5 mg/ml
<b>Background:</b>	<p>The CD45 antigen is an essential regulator of leukocyte activation and development, and is now known to be a protein tyrosine phosphatase, e.g. CD45 is able to dephosphorylate the Src family of protein kinases. (Ref.1,2)</p> <p>This activity is now known to be required for signal transduction induced by T and B cell antigen receptor engagement, cytokine signaling and Fc receptor stimulation. (Ref.1,2) The functional state of CD45 also has a pronounced effect on lymphocyte development. CD45 exists in multiple forms, such as the restricted variants (CD45R; see companion products AM08044, AM08045, AM08046) and as allelic forms CD45.1/Ly-5.1 and CD45.2/Ly-5.2. The former</p> <p>arises as a result of alternative splicing of different exons. The specificity of antibodies to CD45.1 and CD45.2 has been exploited in studies where resolution of donor and recipient cells is essential, such as in gene therapy or bone marrow transplantation. (Ref.3,4)</p>
<b>Uniprot ID:</b>	<a href="#">P06800</a>
<b>NCBI:</b>	<a href="#">10090</a>
<b>Host / Isotype:</b>	Mouse / IgG2a
<b>Clone:</b>	104
<b>Format:</b>	<b>State:</b> Liquid purified Ig fraction. <b>Buffer System:</b> PBS containing 0.09% Sodium Azide as preservative. <b>Label:</b> FITC – Fluorescein Isothiocyanate Isomer 1
<b>Applications:</b>	<b>Flow Cytometry:</b> < / = 1 µg/10e6 cells. (Ref.3,4) <b>Fluorescence Microscopy.</b> (Ref.3,4) Other applications not tested. Optimal dilutions are dependent on conditions and should be determined by the user.
<b>Specificity:</b>	This monoclonal antibody recognizes CD45 (Leukocyte Common Antigen) on all leukocytes of mouse strains expressing the CD45.2 allotype (e.g. A, AKR, BALB/c, CBA/Ca, CBA/J, C3H/He, C57BL, C57BR, C57L, C58, DBA/1, DBA/2, NZB, SWR, 129). <b>Species:</b> Mouse. Other species not tested.

**Storage:** Store the antibody undiluted at 2-8°C for one month or in (aliquots) at -20°C for longer. This product is photosensitive and should be protected from light. Avoid repeated freezing and thawing. Shelf life: one year from despatch.

**General Readings:** 1. Okumura, M. and M. L. Thomas. 1995. Current Opin. Immunol. 7:312-319.  
2. Thomas. M. L. 1995. Seminars in Immunol. 7:279-288.  
3. Mardiney, M and H. L. Malech. 1996. Blood 87:4049-4056.  
4. Vallera, D. A., et al. 1994. Transplantation 57:249-256.

**Pictures:** **Immunofluorescent Staining:** BALB/c bone marrow cells were stained with anti-Mouse CD45.2-FITC, following which small lymphocytes were gated and analyzed on a FACScan(TM) flow cytometer (BDIS, San Jose, CA). Amount Used: < / = 1 µg/10e6 cells.

