

## Polyclonal Antibody to PTP-RQ - Aff - Purified

<b>Catalog No.:</b>	15-288-21559
<b>Quantity:</b>	0.1 mg
<b>Concentration:</b>	1.0 mg/ml
<b>Background:</b>	<p>CD11a together with CD18 constitute leukocyte function-associated antigen 1 (LFA-1), the alphaLbeta2 integrin. CD11a is implicated in activation of LFA-1 complex. LFA-1 is expressed on the plasma membrane of leukocytes in a low-affinity conformation. Cell stimulation by chemokines or other signals leads to induction the high-affinity conformation, which supports tight binding of LFA-1 to its ligands, the intercellular adhesion molecules ICAM-1, -2, -3. LFA-1 is thus involved in interaction of various immune cells and in their tissue-specific settlement, but participates also in control of cell differentiation and proliferation and of T-cell effector functions. Blocking of LFA-1 function by specific antibodies or small molecules has become an important therapeutic approach in treatment of multiple inflammatory diseases. For example, humanized anti-LFA-1 antibody Efalizumab (Raptiva) is being used to interfere with T cell migration to sites of inflammation; binding of cholesterol-lowering drug simvastatin to CD11a allosteric site leads to immunomodulation and increase in lymphocytic cholinergic activity.</p>
<b>Host / Isotype:</b>	Chicken
<b>Immunogen:</b>	Leucocytes from a patient suffering from a LGL-type leukaemia
<b>Format:</b>	<p><b>State:</b> Liquid Ig fraction (&gt; 95% pure) <b>Purification:</b> Protein A chromatography <b>Buffer System:</b> Azide free phosphate buffered saline (PBS), preserved by filter sterilization, approx. pH 7.4</p>
<b>Applications:</b>	<p>Flow Cytometry. Immunoprecipitation (excellent for immunoaffinity purification of LFA-1 complex)). Functional applications (MAb MEM-25 partially blocks binding of LFA-1 complex to ICAM-1). Other applications not tested. Optimal dilutions are dependent on conditions and should be determined by the user.</p>
<b>Specificity:</b>	<p>The antibody clone MEM-25 reacts with the alpha-subunit (CD11a) of human LFA-1, a 170-180 kDa type I transmembrane glycoprotein expressed on B and T lymphocytes, monocytes, macrophages, neutrophils, basophils and eosinophils. <b>Species:</b> Human. Others not tested.</p>

**For research and in vitro use only. Not for diagnostic or therapeutic work.**

Material Safety Datasheets are available at [www.acris-antibodies.com](http://www.acris-antibodies.com) or on request.

Antibody Hotline - Technical Questions - Antibody Location Service  
Free Call: 0800-2274746 (Germany only) - [www.acris-antibodies.com](http://www.acris-antibodies.com)

**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. Shelf life: one year from despatch.

- General References:**
1. Sarantos MR, Raychaudhuri S, Lum AF, Staunton DE, Simon SI: Leukocyte function-associated antigen 1-mediated adhesion stability is dynamically regulated through affinity and valency during bond formation with intercellular adhesion molecule-1. *J Biol Chem.* 2005 Aug 5;280(31):28290-8.
  2. Giblin PA, Lemieux RM: LFA-1 as a key regulator of immune function: approaches toward the development of LFA-1-based therapeutics. *Curr Pharm Des.* 2006;12(22):2771-95.
  3. Kellersch B, Kolanus W: Membrane-proximal signaling events in beta-2 integrin activation. *Results Probl Cell Differ.* 2006;43:245-57.
  4. Fujii T, Takada-Takatori Y, Kawashima K: Roles played by lymphocyte function-associated antigen-1 in the regulation of lymphocytic cholinergic activity. *Life Sci.* 2007 May 30;80(24-25):2320-4.
  5. Leukocyte Typing IV., Knapp W. et al. (Eds.), Oxford University Press (1989).
  6. Bazil V, Stefanova I, Hilgert I, Kristofova H, Vanek S, Horejsi V.: Monoclonal antibodies against human leucocyte antigens. IV. Antibodies against subunits of the LFA-1 (CD11a/CD18) leucocyte-adhesion glycoprotein. *Folia Biol (Praha).* 1990;36(1):41-50.
  7. Ottonello L, Epstein AL, Dapino P, Barbera P, Morone P, Dallegri F: Monoclonal Lym-1 antibody-dependent cytolysis by neutrophils exposed to granulocyte-macrophage colony-stimulating factor: intervention of FcgammaRII (CD32), CD11b-CD18 integrins, and CD66b glycoproteins. *Blood.* 1999 May 15;93(10):3505-11.
  8. Simon SI, Cherapanov V, Nadra I, Waddell TK, Seo SM, Wang Q, Doerschuk CM, Downey GP: Signaling functions of L-selectin in neutrophils: alterations in the cytoskeleton and colocalization with CD18. *J Immunol.* 1999 Sep 1;163(5):2891-901.
  9. Hajishengallis G, Martin M, Sojar HT, Sharma A, Schifferle RE, DeNardin E, Russell MW, Genco RJ: Dependence of bacterial protein adhesins on toll-like receptors for proinflammatory cytokine induction. *Clin Diagn Lab Immunol.* 2002 Mar;9(2):403-11.
  10. Wang JH, Kwas C, Wu L: Intercellular adhesion molecule 1 (ICAM-1), but not ICAM-2 and -3, is important for dendritic cell-mediated human immunodeficiency virus type 1 transmission. *J Virol.* 2009 May;83(9):4195-204.
  11. Garnotel R, Rittié L, Poitevin S, Monboisse JC, Nguyen P, Potron G, Maquart FX, Randoux A, Gillery P: Human blood monocytes interact with type I collagen through alpha x beta 2 integrin (CD11c-CD18, gp150-95). *J Immunol.* 2000 Jun 1;164(11):5928-34.
  12. Mathison RD, Befus AD, Davison JS, Woodman RC: Modulation of neutrophil function by the tripeptide feG. *BMC Immunol.* 2003 Mar 4;4:3. Epub 2003 Mar 4.
  13. Aubert M, Yoon M, Sloan DD, Spear PG, Jerome KR: The virological synapse facilitates herpes simplex virus entry into T cells. *J Virol.* 2009 Jun;83(12):6171-83.

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