



Product Specification Sheet

Mouse monoclonal Anti-Rat CD11a (LFA-1 alpha chain) Antibodies and conjugates

<b>Cat # RCD011a-M</b>	<b>Mouse</b> Anti-Rat CD11a IgG, unlabeled	<b>SIZE:</b> 100 tests
<b>Cat # RCD011a-B</b>	<b>Mouse</b> Anti-Rat CD11a IgG, biotin conjugate	<b>SIZE:</b> 100 tests
<b>Cat # RCD011a -F</b>	<b>Mouse</b> Anti-Rat CD11a IgG, FITC conjugate	<b>SIZE:</b> 100 tests
<b>Cat # RCD011a -PE</b>	<b>Mouse</b> Anti-Rat CD11a IgG, R-PE conjugate	<b>SIZE:</b> 100 tests

Integrin, alpha L (antigen CD11A (p180), lymphocyte function-associated antigen 1; alpha polypeptide), also known as ITGAL, is a human gene which functions in the immune system. It is involved in cellular adhesion and costimulatory signaling. It is the target of the drug efalizumab. ITGAL encodes the integrin alpha L chain. Integrins are heterodimeric integral membrane proteins composed of an alpha chain and a beta chain. This I-domain containing alpha integrin combines with the beta 2 chain (ITGB2) to form the integrin lymphocyte function-associated antigen-1 (LFA-1), which is expressed on all leukocytes. LFA-1 plays a central role in leukocyte intercellular adhesion through interactions with its ligands, ICAMs 1-3 (intercellular adhesion molecules 1 through 3), and also functions in lymphocyte costimulatory signaling. CD11a is one of the two components, along with CD18, which form lymphocyte function-associated antigen-1. Efalizumab acts as an immunosuppressant by binding to CD11a.

The antibody is specific for the a subunit of LFA-1. It inhibits homeotypic aggregation of PHA blasts and blocks the binding of rat lymphocytes to purified rat ICAM-1.

<b>Antigen</b>	Rat splenic PHA blasts (blab/c spleen)
<b>Ab Host/type</b>	Mouse monoclonal IgG2a,
<b>2-ab</b>	#40122 Anti-Mouse IgG2a (heavy-chain sp.) aff pure, unlabeled; #40122-BT (biotin labeled), #40122-F (FITC conj) , #40127 (HRP labeled),
-ve control IgG	20102-102, mouse IgG2a, purified, isotype matching -ve control

**Mouse IgG2a (isotype controls)**

Catalog#	ProdDescription
20102-102	Mouse IgG2a isotype control, purified
20102-102-B	Mouse IgG2a-Biotin conjugate (control)
20102-102-F	Mouse IgG2a-FITC conjugate (isotype control)
20102-102-FP	Mouse IgG2a-FITC-PE conjugate (control)
20102-102-HP	Mouse IgG2a-HRP conjugate (isotype control)
20102-102-PC5	Mouse IgG2a-PE-Cy5 conjugate (control)

**Form & Storage of Antibodies/Peptide Control**

**Affinity pure IgG**

100 tests/100ul solution lyophilized powder  
 Supplied in **Buffer:** PBS+0.02% azide  
**Reconstitute powder** in PBS in 100 ul

**Cat# RCD011A-F, Anti-Rat CD011A-FITC-conjugate**

Purified antibody was coupled to FITC at F/P ratio ~3:7. The antibody is supplied in PBS, pH 7.4, 0.2% BSA and 0.05% azide in either **lyophilized** (1 ml) or **liquid** form (100 tests/ml; see lot sp concn on the vial). Reconstitute powder in PBS to prepare stock

solution. Store at -20oC in suitable aliquots. Stability is ~6-12 months. Do not freeze and thaw.

Suggested conjugate dilutions are 1:200-1:2000 for immunofluorescence.

**Absorption** Wavelength: 495 nm

**Emission** Wavelength: 528 nm

**Recommended Usage**

Flow cytometry: 0.5-1 ug/10<sup>6</sup> cells

Cell Source Percentage of cells stained above control:

Thymus 97.0%; Spleen 34.0%; Lymph Node 76.2%

**Cat# RCD011A-B, Biotin-conjugate**

Purified antibody was coupled to Biotin using Biotinamidocaproate N-Hydroxysuccinimide Ester (BAC) at F/P ratio ~10-20:1. The antibody is supplied in PBS, pH 7.4, 0.2% BSA and 0.05% azide in either **lyophilized** or **liquid** form (100 tests). Reconstitute powder in PBS in 0.5-1 ml to prepare stock solution. Store at -20oC in suitable aliquots. Stability is ~6-12 months. Do not freeze and thaw.

Suggested conjugate dilutions are 1:5,000-1:30,000 ELISA, 1:2K-1:10K for western.

**Cat# RCD011A-PE, PE-conjugate**

The purified antibody was coupled to R-Phycoerythrin (R-PE) (Molecular Weight 240,000 daltons) from seaweed using proprietary methods (A565nm/A280nm ~3-4).

Absorption: 490 nm, 545 nm and 565 nm

Emission Wavelength: 580 nm

The conjugate is provided in PBS, pH 7.5, containing 0.1% bovine serum albumin, (BSA) 0.05% sodium azide and stabilizing agent). DO NOT FREEZE. The product should be stored at 4oC and is stable for a minimum of 1 year. Do not store diluted solutions.

Recommended usage is ~10 ul/106 cells for Flow cytometry or FACS. Due to many experimental variations, optimum concn must be determined for a given applications

**General References:** Lub M (1995) Immunol. Today. 16, 479-483; Giblin PA (2006) Curr. Pharm. Des. 12, 2771-2795; Hildreth JE (1989) JCB 108, 703-712; Sanders ME (1988) J. Immunol. 140, 1401-1407.

\*This product is for in vitro research use only.

RCD011A

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