

# Monoclonal Antibody CD11a

PN IM0157 – Purified – Freeze-dried – 0.2 mg – Clone 25.3

For Research Use Only. Not for use in diagnostic procedures.

## SPECIFICITY

The CD11a antigen ( $\alpha$ L integrin, LFA-1  $\alpha$  chain) is a member of the integrin family. Like other leucocyte integrins (CD11b, CD11c, CD11d), CD11a is non-covalently associated with the  $\beta$ 2 integrin subunit CD18 (1). CD11a is a trans-membrane glycoprotein of 170 kDa, mainly expressed by all leucocytes including monocytes, macrophages, neutrophils, eosinophils, basophils, B and T lymphocytes (2). Activated platelets and megakaryocytic cell lines also express CD11a and CD18 (3). LFA-1 (CD11a / CD18) promotes homotypic adhesion between lymphoid cells and heterotypic adhesion of leucocytes to the vascular endothelium (4, 5). LFA-1's known ligands are Intercellular Adhesion Molecules (ICAM): ICAM-1 (CD54), ICAM-2 (CD102) and ICAM-3 (CD50) are listed as ligands for LFA-1 (6).

The 25.3 monoclonal antibody has been assigned to the CD11a cluster of differentiation at the 4th International Workshop on Human Leucocyte Differentiation Antigens in Vienna, Austria, in 1989 (7).

## REAGENT

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Clone	25.3
Isotype	IgG1
Immunogen	Cytotoxic clone anticlass II (Tm - 20)
Hybridoma	63-Ag 8.653 x Balb/c
Species	Mouse
Source	ascites fluid
Purification	Protein A affinity chromatography

## REAGENT CONTENTS

1 mg/mL bovine serum albumin in phosphate-buffered saline.

## STATEMENT OF WARNINGS

1. Specimens, samples and all material coming in contact with them should be handled as if capable of transmitting

infection and disposed of with proper precautions.

2. Never pipet by mouth and avoid contact of samples with skin and mucous membranes.
3. Do not use reagent beyond the expiration date on the vial label.
4. Avoid microbial contamination of reagent or erroneous results may occur.
5. Use good laboratory practices when handling this reagent.

## STORAGE CONDITIONS AND STABILITY

This reagent is stable up to the expiration date on the vial label when stored at 2 – 8°C. The reconstituted form may be stored at – 20°C until the expiration date. Aliquoting is suggested to avoid multiple freeze-thaw cycles. The addition of sodium azide at 0.1% (w/v) is recommended for storage of the reconstituted form for up to one month at 2 – 8°C. Minimize exposure to light and warmth.

## REAGENT PREPARATION

Reconstitute with 1 mL of distilled water. No preservative has been added.

## APPLICATIONS

Flow cytometry, Immunoprecipitation

For each application, it is recommended to establish the right range of antibody dilutions to be used for the experiment.

## SELECTED RESEARCH REFERENCES

1. Sanchez-Madrid, F., Krensky, A.M., Ware, C.F., Robbins, E., Strominger, J.L., Burakoff, S.J., Springer, T.A., "Three distinct antigens associated with human T-lymphocyte-mediated cytotoxicity : LFA-1, LFA-2 and LFA-3", 1982, Proc. Natl. Acad. Sci. USA, 79, 7489-7493.
2. Petruzelli, L., Huang, C., Springer, T.A., "CD11a cluster report", 1995, Leucocyte Typing V, White Cell Differentiation

- Antigens. Schlossman, S.F., et al., Eds., Oxford University Press, 1586-1587.
3. Philippeaux, M.M., Vesin, C., Tacchini-Cottier, F., Piguat, P.F., "Activated human platelets express  $\beta$ 2 integrin", 1996, Eur. J. Haematol., 56, 130-137.
4. Springer, T.A., Dustin, M.L., Kishimoto, T.K., Marlin, S.D., "The lymphocyte function-associated LFA-1, CD2, and LFA-3 molecules: Cell adhesion receptors of the immune system", 1987, Annu. Rev. Immunol., 5, 223-252.
5. Ortlepp, S., Stephens, P.E., Hogg, N., Figdor, C.G., Robinson, M.K., "Antibodies that activate  $\beta$ 2 integrins can generate different ligand binding states", 1995, Eur. J. Immunol., 3, 25, 637-643.
6. Marlin, S.D., Springer, T.A., "Purified intercellular adhesion molecule-1 (ICAM-1) is a ligand for lymphocyte function-associated antigen 1 (LFA-1)", 1987, Cell, 51, 813-819.
7. Uciechowski, P., Schmidt, R.E., "Cluster report : CD11", 1989, Leucocyte Typing IV, White Cell Differentiation Antigens. W. Knapp, et al., Eds., Oxford University Press, 543-551.

## PRODUCT AVAILABILITY

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For additional information in the USA, call 800-526-7694.

Outside the USA, contact your local Beckman Coulter representative.

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