Datasheet

Mouse mAb to **CD54 (ICAM-1)**
Clone **F4-31C2**
Isotype **IgG2a-κ**

Source

A BALB/c mouse was immunized with human umbilical cord vein endothelial cells (HUVEC).
Fusion partner: X63Ag8/653.

Specifications

F4-31C2 reacts with CD54 or ICAM1 (Intercellular Adhesion Molecule 1). ICAM1 belongs to the immunoglobulin superfamily, C2 subset, is a transmembrane molecule of 90 kDa with 7 potential N-glycosylation sites. It is expressed on resting monocytes and endothelial cells and in response to inflammatory cytokines such as TNF-alpha, IL1 and IFN-gamma, can be highly upregulated on many other cells, e.g. on B- and T-lymphocytes, thymocytes, dendritic cells and also on keratinocytes, chondrocytes, as well as epithelial cells. CD54 mediates cell adhesion by binding to integrin CD11a/CD18 (LFA 1) and to CD1b/CD18 (Mac 1). The interaction of CD54 with LFA 1 enhances antigen specific T-cell activation. CD54 also binds to CD43, fibrinogen, most human rhinoviruses and to *Plasmodium falciparum* infected erythrocytes. ICAM1 may also be related to progression and metastasis of tumors.

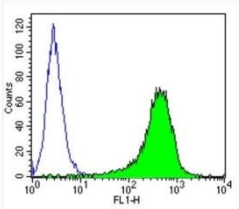

Figure 1: Human PBL stained for CD54 (FACS).

Species reactivity

Positive: human.

Applications

F4-31C2 can be used for identifying ICAM-1.

Flow cytometry	Frozen sections	Immunofluorescence	Paraffin sections
+	+	+	-

Format

Produced in tissue culture, contains no host Ig. Antibodies are affinity purified and presented in PBS with 0,02% sodium azide.
Stored at 4°C-8°C, shelf life is at least 24 months after purchase.

Dilution advice

- Flow cytometry (0,5-1,0 µg/million cells in 0,1 ml).
- Immunofluorescence (0,5-1,0 µg/ml).
- Immunohistology (2-4 µg/ml for 30 min at RT; no antigen retrieval method has been established to date for staining of formalin fixed paraffin embedded sections).

Positive control

Raji cells, MOLT-4 cells, Human tonsil, Lymph node.

References

- Johnson, J.P., et al., Cluster Report: CD54, in : Knapp, W., et al. (eds), Leucocyte Typing IV, Oxford Univ. Press, pp 681-683.