



MOUSE ANTI-HUMAN INTEGRIN beta1 MONOCLONAL ANTIBODY

CATALOG NUMBER: MAB1965 **QUANTITY:** 100 µL
LOT NUMBER:
ALTERNATE NAMES: CD29 **EPITOPE:** a.a. 82-87 hbeta1

BACKGROUND: The primary function of the integrin family is to mediate cell-cell and cell-matrix adhesion interaction. CD29 is ubiquitous, with broad tissue distribution, but is not expressed on erythrocytes and is expressed only weakly on granulocytes. Integrins play an important role in cell adhesion and migration, and their normal function is critical in the induction and maintenance of cell differentiation. Loss or downregulation of CD29 has been proposed to be one of the general pathways through which carcinoma cells may acquire a more invasive and differentiated phenotype. Furthermore, loss or downregulation of integrin occurs relatively frequently in poorly differentiated colorectal and breast carcinomas as determined by immunohistochemistry.

SPECIFICITY: Reacts with the human integrin beta 1. Note: integrin beta 1 is expressed in all tissues/cell types except erythrocytes. The epitope recognized by JB1a was recently mapped to residues 82-87 of the mature beta 1 integrin chain. In this study Mn⁺⁺ was found to inhibit binding of JB1a both to mature beta 1 integrin and to a synthetic peptide corresponding to residues 82-87{Ni, 1998}.

IMMUNOGEN: Purified beta 1 integrin and Jurkat cells

APPLICATIONS: Inhibition of Jurkat binding to collagen and fibronectin:
1:100 Note: epitope is trypsin sensitive; cells should be prepared with PBS + EDTA (2mM) or other non-enzymatic methods. Blocking will not occur with trypsinized cells with JB1A.

Immunoprecipitation: 1:250-500

Western blotting (reducing, 115 kDa; non-reducing, 130 kDa): 1:1000-2000

Immunocytochemistry/Immunohistochemistry: JB1A can be used on unfixed cells in flow cytometry and culture {Akimov, 2001; Blood 98(5):1567-1576}. Often times fixing with 2-3% PFA for 5 minutes after primary antibody incubation will assist in obtain strong signals since it fixes the primary antibodies to the tissues.

FACS: JB1A has been primarily used against live cells at 1:200-1:500 followed by goat anti-mouse conjugated secondaries

Note: binding of antibody may be inhibited by magnesium ion concentrations exceeding 0.5mM.

Optimal working dilutions must be determined by end user.

SPECIES REACTIVITY: Reacts with Human. Reactivity with other species has not been determined.

PRESENTATION: Ascites fluid containing no preservatives.

STORAGE/HANDLING: Store at -20°C in undiluted aliquots for up to 12 months. Avoid repeated freeze/thaw cycles.

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Important Note:

During shipment, small volumes of product will occasionally become entrapped in the seal of the product vial. For products with volumes of 200 µL or less, we recommend gently tapping the vial on a hard surface or briefly centrifuging the vial in a tabletop centrifuge to dislodge any liquid in the container's cap.

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