### MB0336

□ 50ul □ 100 uL

ITGB1 Antibody

# Abmart

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#### Description:

Integrins alpha-1/beta-1, alpha-2/beta-1, alpha-10/beta-1 and alpha-11/beta-1 are receptors for collagen. Integrins alpha-1/beta-1 and alpha-2/beta-2 recognize the proline-hydroxylated sequence G-F-P-G-E-R in collagen. Integrins alpha-2/beta-1, alpha-3/beta-1, alpha-4/beta-1, alpha-5/beta-1, alpha-8/beta-1, alpha-10/beta-1, alpha-11/beta-1 and alpha-V/beta-1 are receptors for fibronectin. Alpha-4/beta-1 recognizes one or more domains within the alternatively spliced CS-1 and CS-5 regions of fibronectin. Integrin alpha-5/beta-1 is a receptor for fibrinogen. Integrin alpha-1/beta-1, alpha-2/beta-1, alpha-6/beta-1 and alpha-7/beta-1 are receptors for lamimin. Integrin alpha-6/beta-1 (ITGA6:ITGB1) is present in oocytes and is involved in spermegg fusion (By similarity). Integrin alpha-4/beta-1 is a receptor for VCAM1. It recognizes the sequence Q-I-D-S in VCAM1. Integrin alpha-9/beta-1 is a receptor for VCAM1, cytotactin and osteopontin. It recognizes the sequence A-E-I-D-G-I-E-L in cytotactin. Integrin alpha-3/beta-1 is a receptor for epiligrin, thrombospondin and CSPG4. Alpha-3/beta-1 may mediate with LGALS3 the stimulation by CSPG4 of endothelial cells migration. Integrin alpha-V/beta-1 is a receptor for vitronectin. Beta-1 integrins recognize the sequence R-G-D in a wide array of ligands. Isoform 2 interferes with isoform 1 resulting in a dominant negative effect on cell adhesion and migration (in vitro). When associated with alpha-7/beta-1 integrin, regulates cell adhesion and laminin matrix deposition. Involved in promoting endothelial cell motility and angiogenesis. Involved in osteoblast compaction through the fibronectin fibrillogenesis cell-mediated matrix assembly process and the formation of mineralized bone nodules. May be involved in up-regulation of the activity of kinases such as PKC via binding to KRT1. Together with KRT1 and RACK1, serves as a platform for SRC activation or inactivation. Plays a mechanistic adhesive role during telophase, required for the successful completion of cytokinesis. Integrin alpha-3/beta-1 provides a docking site for FAP (seprase) at invadopodia plasma membranes in a collagendependent manner and hence may participate in the adhesion, formation of invadopodia and matrix degradation processes, promoting cell invasion. ITGA4:ITGB1 binds to fractalkine (CX3CL1) and may act as its coreceptor in CX3CR1-dependent fractalkine signaling. ITGA4:ITGB1 and ITGA5:ITGB1 bind to PLA2G2A via a site (site 2) which is distinct from the classical ligand-binding site (site 1) and this induces integrin conformational changes and enhanced ligand binding to site 1. ITGA5:ITGB1 acts as a receptor for fibrillin-1 (FBN1) and mediates R-G-D-dependent cell adhesion to FBN1. ITGA5:ITGB1 is a receptor for IL1B and binding is essential for IL1B signaling. ITGA5:ITGB3 is a receptor for soluble CD40LG and is required for CD40/CD40LG signaling.lsoform 5 displaces isoform 1 in striated muscles.(Microbial infection) Integrin ITGA2:ITGB1 acts as a receptor for Human echoviruses 1 and 8. (Microbial infection) Acts as a receptor for Cytomegalovirus/HHV-5.(Microbial infection) Acts as a receptor for Epstein-Barr virus/HHV-4.(Microbial infection) Integrin ITGA5:ITGB1 acts as a receptor for Human parvovirus B19.(Microbial infection) Integrin ITGA2:ITGB1 acts as a receptor for Human rotavirus.(Microbial infection) Acts as a receptor for Mammalian reovirus.(Microbial infection) In case of HIV-1 infection, integrin ITGA5:ITGB1 binding to extracellular viral Tat protein seems to enhance angiogenesis in Kaposi's sarcoma lesions.

#### Uniprot : P05556

#### **Alternative Names:**

beta1 integrin; CD29; Fibronectin receptor subunit beta; FNRB; Glycoprotein IIa; GP IIa; GPIIA; Integrin beta-1; Integrin subunit beta 1; integrin VLA-4 beta subunit; Integrin, beta 1 (fibronectin receptor, beta polypeptide, antigen CD29 includes MDF2, MSK12); ITB1\_HUMAN; ITGB1; MDF2; MSK12; OTTHUMP00000019420; Very late activation protein, beta polypeptide; VLA BETA; VLA-4 subunit beta; VLA-BETA; VLAB; VLABeta;

## Specificity:

ITGB1 antibody detects endogenous levels of total ITGB1.

Reactivity : Human, Mouse

Source : Mouse

Mol.Wt.: 88.4kD; 88kDa(Calculated).

**Storage Condition:** Store at -20 °C. Stable for 12 months from date of receipt.

Application: WB,IHC,ELISA,FCM Recommended dilution WB 1:500-1:2000 IHC 1:50-1:500 ELISA 1: 2000 FCM 1: 50