

# Anti-Integrin beta 1 Antibody [B10-A5]

EM1901-77



<b>Product Type:</b>	Mouse monoclonal IgM, primary antibodies
<b>Species reactivity:</b>	Human, Mouse
<b>Applications:</b>	WB, IHC-P, FC
<b>Molecular Wt:</b>	Predicted band size: 88 kDa
<b>Clone number:</b>	B10-A5

**Description:** Integrins are transmembrane receptors that mediate the attachment between a cell and its surroundings, such as other cells or the extracellular matrix (ECM). Integrins are obligate heterodimers containing two distinct chains, called the  $\alpha$  (alpha) and  $\beta$  (beta) subunits. The molecular mass of the integrin subunits can vary from 90 kDa to 160 kDa. Beta subunits have four cysteine-rich repeated sequences. Both  $\alpha$  and  $\beta$  subunits bind several divalent cations. Integrins have two main functions: Attachment of the cell to the ECM and signal transduction from the ECM to the cell. However, they are also involved in a wide range of other biological activities, including immune patrolling, cell migration, and binding to cells by certain viruses, such as adenovirus, echovirus, hantavirus, and foot and mouth disease viruses. Research studies have implicated  $\beta 1$  integrin in various activities including embryonic development, blood vessel, skin, bone, and muscle formation, as well as tumor metastasis and angiogenesis.

**Immunogen:** Synthetic peptide of the C-terminal Human Integrin beta 1.

**Positive control:** Human liver tissue lysate, mouse liver tissue lysate, A172 cell lysate, human tonsil tissue, human kidney tissue, L929.

**Subcellular location:** Cell Membrane, Cell projection, Cleavage furrow.

**Database links:** SwissProt: P05556 Human | P09055 Mouse

**Recommended Dilutions:**

<b>WB</b>	1:1000-1:5000
<b>IHC-P</b>	1:50-1:200
<b>FC</b>	1:50-1:100

**Storage Buffer:** 1\*PBS (pH7.4), 0.2% BSA, 50% Glycerol. Preservative: 0.05% Sodium Azide.

**Storage Instruction:** Store at +4°C after thawing. Aliquot store at -20°C. Avoid repeated freeze / thaw cycles.

**Purity:** Protein A affinity purified.

Hangzhou HuaAn Biotechnology Co.,Ltd.

Orders: 0086-571-88062880

Technical:0086-571-89986345

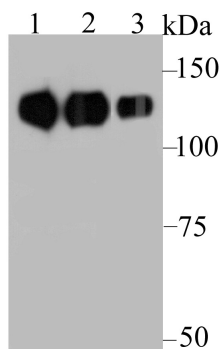
Service mail: support@huabio.cn

www.huabio.cn



Applications: WB=Western blot IP=Immunoprecipitation IHC=Immunohistochemistry IF=Immunofluorescence FC=Flow cytometry

## Images



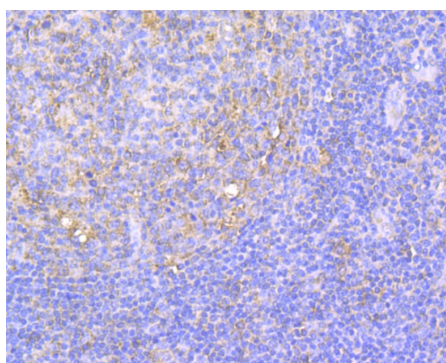
**Fig1:** Western blot analysis of Integrin beta 1 on different lysates. Proteins were transferred to a PVDF membrane and blocked with 5% BSA in PBS for 1 hour at room temperature. The primary antibody was used at a 1/1,000 dilution in 5% BSA at room temperature for 2 hours. Goat Anti-Mouse IgG - HRP Secondary Antibody (HA1006) at 1:5,000 dilution was used for 1 hour at room temperature.

**Positive control:**

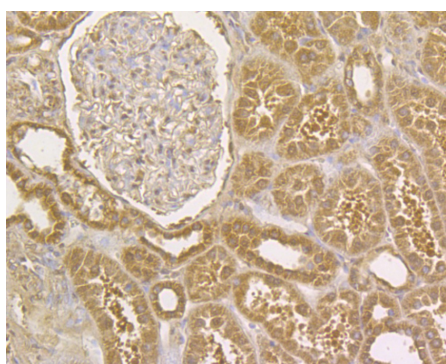
Lane 1: Human liver tissue lysate, untreated

Lane 2: Mouse liver tissue lysate, untreated

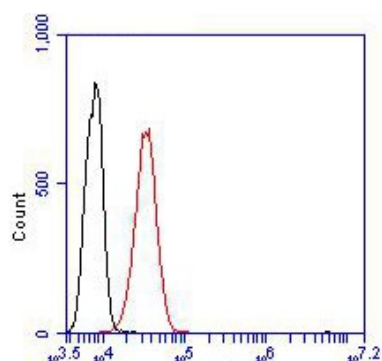
Lane 2: A172 cell lysate, untreated



**Fig2:** Immunohistochemical analysis of paraffin-embedded human tonsil tissue using anti-Integrin beta 1 antibody. The section was pre-treated using heat mediated antigen retrieval with Tris-EDTA buffer (pH 8.0-8.4) for 20 minutes. The tissues were blocked in 5% BSA for 30 minutes at room temperature, washed with ddH<sub>2</sub>O and PBS, and then probed with the antibody (EM1901-77) at 1/200 dilution, for 30 minutes at room temperature and detected using an HRP conjugated compact polymer system. DAB was used as the chromogen. Counter stained with hematoxylin and mounted with DPX



**Fig3:** Immunohistochemical analysis of paraffin-embedded human kidney tissue using anti-Integrin beta 1 antibody. The section was pre-treated using heat mediated antigen retrieval with Tris-EDTA buffer (pH 8.0-8.4) for 20 minutes. The tissues were blocked in 5% BSA for 30 minutes at room temperature, washed with ddH<sub>2</sub>O and PBS, and then probed with the antibody (EM1901-77) at 1/50 dilution, for 30 minutes at room temperature and detected using an HRP conjugated compact polymer system. DAB was used as the chromogen. Counter stained with hematoxylin and mounted with DPX



**Fig4:** Flow cytometric analysis of Integrin beta 1 was done on L929 cells. The cells were fixed, permeabilized and stained with the primary antibody (EM1901-77, 1/100) (red). After incubation of the primary antibody at room temperature for an hour, the cells were stained with a Alexa Fluor 488 Goat anti-Mouse IgG Secondary antibody at 1/500 dilution for 30 minutes. Unlabelled sample was used as a control (cells without incubation with primary antibody; black).

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**Note:** All products are “FOR RESEARCH USE ONLY AND ARE NOT INTENDED FOR DIAGNOSTIC OR THERAPEUTIC USE”.

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### Background References

1. Chen R et al. Glycoproteomics analysis of human liver tissue by combination of multiple enzyme digestion and hydrazide chemistry. *Proteome Res* 8:651-661 (2009).
2. Brunner M et al. Osteoblast mineralization requires beta1 integrin/ICAP-1-dependent fibronectin deposition. *J Cell Biol* 194:307-322 (2011).