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**Product Name:** KD-Validated Integrin  $\beta$  1 Recombinant Rabbit Monoclonal Antibody  
**Catalog #:** KVA00298

For research use only.

## Summary

|                     |                                                                             |
|---------------------|-----------------------------------------------------------------------------|
| <b>Description</b>  | KO&KD-Validated antibody                                                    |
| <b>Host</b>         | Rabbit                                                                      |
| <b>Application</b>  | WB,FCM,ICC,IHC-P                                                            |
| <b>Reactivity</b>   | Human                                                                       |
| <b>Conjugation</b>  | Unconjugated                                                                |
| <b>Modification</b> | Unmodified                                                                  |
| <b>Isotype</b>      | Rabbit IgG                                                                  |
| <b>Clonality</b>    | Rabbit mAb                                                                  |
| <b>Form</b>         | Liquid                                                                      |
| <b>Storage</b>      | Aliquot and store at -20°C (valid for 12 months). Avoid freeze/thaw cycles. |
| <b>Shipping</b>     | Ice bags                                                                    |
| <b>Buffer</b>       | Supplied in PBS (pH 7.4) containing 50% glycerol, and 0.02% sodium azide.   |
| <b>Purification</b> | Affinity purification                                                       |

## Application

|                         |                                                                            |
|-------------------------|----------------------------------------------------------------------------|
| <b>Dilution Ratio</b>   | WB 1:1,000-1:5,000; FC 1:200-1:2,000; ICC 1:100-1:1,000; IHC-P 1:100-1:200 |
| <b>Molecular Weight</b> | Calculated MW: 88.4kDa                                                     |

## Antigen Information

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|--------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Gene Name</b>         | ITGB1                                                                                                                                                                                                                                                                                                                                              |
| <b>Alternative Names</b> | GPIIA; MSK12; CD29; FNRB; MDF2; Integrin, Beta 1 (Fibronectin Receptor, Beta Polypeptide, Antigen CD29 Includes MDF2, MSK12); Glycoprotein IIa; Integrin Beta-1; Very Late Activation Protein, Beta Polypeptide; Fibronectin Receptor Subunit Beta; Integrin VLA-4 Beta Subunit; VLA-4 Subunit Beta; Integrin Beta 1; CD29 Antigen; VLA-BETA; VLAB |
| <b>Gene ID</b>           | 3688.0                                                                                                                                                                                                                                                                                                                                             |
| <b>SwissProt ID</b>      | P05556                                                                                                                                                                                                                                                                                                                                             |
| <b>Immunogen</b>         | A synthesized peptide derived from human Integrin beta 1                                                                                                                                                                                                                                                                                           |

## Background

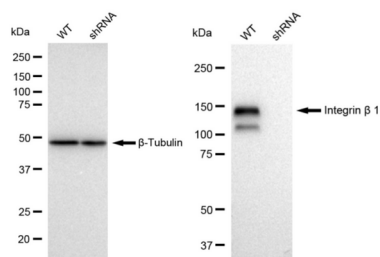
Integrins are heterodimeric proteins made up of alpha and beta subunits. At least 18 alpha and 8 beta subunits have been

described in mammals. Integrin family members are membrane receptors involved in cell adhesion and recognition in a variety of processes including embryogenesis, hemostasis, tissue repair, immune response and metastatic diffusion of tumor cells. This gene encodes a beta subunit. Multiple alternatively spliced transcript variants which encode different protein isoforms have been found for this gene. [provided by RefSeq, Jul 2008]

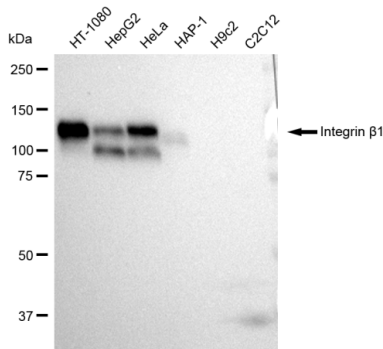
## Research Area

Neuroscience, Microbiology, Signal Transduction, Stem Cells, Developmental Biology

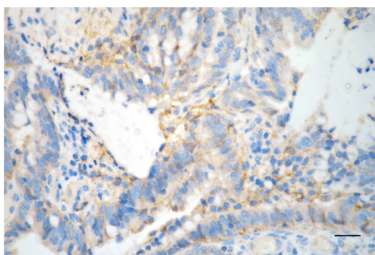
## Image Data



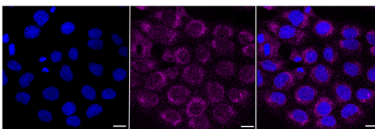
Western blotting analysis using Integrin beta 1 antibody (KVA00298). Integrin beta 1 expression in wild type (WT) and Integrin beta 1 shRNA knockdown (KD) HeLa cells with 30 µg of total cell lysates.  $\beta$ -Tubulin serves as a loading control. The blot was incubated with Integrin beta 1 antibody (KVA00298, 1:5,000) and HRP-conjugated goat anti rabbit secondary antibody (APS0635, 1:10,000) respectively.



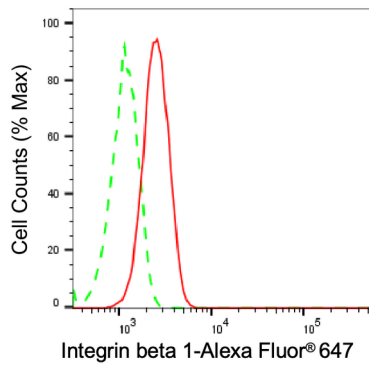
Western blotting analysis using Integrin beta 1 antibody (KVA00298). Total cell lysates (30 µg) from various cell lines were loaded and separated by SDS-PAGE. The blot was incubated with Integrin beta 1 antibody (KVA00298, 1:5,000) and HRP-conjugated goat anti-rabbit secondary antibody (APS0635) respectively.



Immunohistochemistry was performed on paraffin-embedded human sigmoid colon carcinoma using integrin beta1 antibody (KVA00298, 1:200). Antigen retrieval was done in sodium citrate buffer (pH 6.0). DAB was used for detection, with hematoxylin counterstaining. Images were acquired using a Nikon Ci-L Plus microscope (40 $\times$  objective). Scale bar: 25 µm.



Immunocytochemical staining of HT-1080 cells with Integrin beta 1 antibody (KVA00298, 1:1,000). Nuclei were stained blue with DAPI; Integrin beta 1 was stained magenta with Alexa Fluor® 647. Images were taken using Leica stellaris 5. Protein abundance based on laser Intensity and smart gain: Medium. Scale bar: 20 µm.



Flow cytometric analysis of Integrin beta 1 expression in HT-1080 cells using Integrin beta 1 antibody (KVA00298, 1:2,000). Green, isotype control; red, Integrin beta 1.