

## RABBIT ANTI-INTEGRIN BETA1 PHOSPHO-SPECIFIC [SER785] POLYCLONAL ANTIBODY

<b>CATALOG NUMBER:</b>	AB1927	<b>QUANTITY:</b>	100 µL
<b>LOT NUMBER:</b>		<b>CONCENTRATION:</b>	0.50 mg/mL
<b>ALTERNATE NAMES:</b>	CD29	<b>EPITOPE:</b>	Phosphoserine 785

**BACKGROUND:** Integrin beta1 is a transmembrane glycoprotein that forms noncovalent complexes with various alpha integrin subunits to form the functional receptors that bind to specific extracellular matrix proteins. Integrin receptors are involved in cell adhesion and recognition in a variety of processes including embryogenesis, hemostasis, tissue repair, immune response and metastatic diffusion of tumor cells. Interactions between integrins and extracellular matrix lead to activation of signal transduction pathways and regulation of gene expression. Phosphorylation of serine 785 on integrin beta1 promotes cell attachment, but inhibits spreading and migration. In contrast, dephosphorylation promotes cell spreading and migration.

**SPECIFICITY:** The antibody detects a 130 kDa protein of integrin beta1.

**APPLICATIONS:** Western Blot: 1:1000  
*Optimal working dilutions must be determined by the end user.*

**SPECIES REACTIVITY:** Mouse and chicken. Reactivity with other species has not been confirmed. This sequence is 100% homologous in human and rat integrin beta1.

**IMMUNOGEN:** Phosphorylated integrin beta1 (Ser785) synthetic peptide corresponding to human amino acid residues around serine 785. The sequence is conserved in mouse, rat and chicken.

**PRESENTATION:** Purified from rabbit serum. Antibody is cross-adsorbed to nonphospho-peptide corresponding to the site of phosphorylation then affinity purified using phosphorylated integrin beta1 (Ser785) peptide. Antibody is supplied in 100 µl phosphate-buffered saline (no Ca<sup>2+</sup>, no Mg<sup>2+</sup>), pH 7.3, 1 mg/ml BSA, and 0.05% sodium azide.

**STORAGE/HANDLING:** Maintain at -20°C for up to one year from date of receipt. Avoid repeated freeze/thaw cycles.

**RELATED REFERENCES:** Mulrooney, J.P., et al. (2001) Serine 785 phosphorylation of the β1 cytoplasmic domain modulates β1A-integrin-dependent functions. *J. Cell Sci.* 114:2525-2533.

Liu, Y., et al. (2000) Focal adhesion kinase (FAK) phosphorylation is not required for genistein-induced FAK-beta-1-integrin complex formation. *Clin. Exp. Metastasis.* 18(3):203-212.

Schlaepfer, D.D., et al. (1999) Signaling through focal adhesion kinase. *Prog. Biophys. Mol. Biol.* 71(3-4):435-478.

Wennerberg, K., et al. (1998) Mutational analysis of the potential phosphorylation sites in



the cytoplasmic domain of integrin  $\beta$ 1A. J. Cell Sci. 111:1117-1126.

Barreuther, M.F. and L.B. Grabel (1996) The role of phosphorylation in modulating beta 1 integrin localization. Exp. Cell Res. 222(1):10-15.

Maguire, J.E., et al. (1995) T cell receptor- and beta 1 integrin-mediated signals synergize to induce tyrosine phosphorylation of focal adhesion kinase (pp125FAK) in human T cells. J. Exp. Med. 182(6):2079-2090.

**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  $\mu$ L 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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PROCEDURES. NOT FOR HUMAN OR ANIMAL CONSUMPTION**

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