Integrin β1 (D2E5) Rabbit mAb



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Applications: WB, IHC-P	Reactivity: H	Sensitivity: Endogenous	MW (kDa): 115, 135	Source/Isotype: Rabbit IgG	UniProt ID: #P05556	Entrez-Gene Id: 3688	
Product Usage Information	Ap	Application			Dilution		
	We	estern Blotting			1:1000		
	Imi	Immunohistochemistry (Paraffin)			1:100 - 1:400		
Storage	0.02	Supplied in 10 mM sodium HEPES (pH 7.5), 150 mM NaCl, 100 µg/ml BSA, 50% glycerol and less than 0.02% sodium azide. Store at –20°C. Do not aliquot the antibody. For a carrier free (BSA and azide free) version of this product see product #72927.					
Specificity / Sensi	tivity Inte	Integrin $\beta1$ (D2E5) Rabbit mAb detects endogenous levels of total integrin $\beta1$ protein.					
Source / Purificati		Monoclonal antibody is produced by immunizing animals with a synthetic peptide corresponding to residues surrounding Pro680 of human integrin $\beta 1$ protein.					
Background	as v 24 k	Integrins are α/β heterodimeric cell surface receptors that play a pivotal role in cell adhesion and migration, as well as in growth and survival (1,2). The integrin family contains at least 18 α and 8 β subunits that form 24 known integrins with distinct tissue distribution and overlapping ligand specificities (3). Integrins not only transmit signals to cells in response to the extracellular environment (outside-in signaling), but also sense					

as well as in growth and survival (1,2). The integrin family contains at least $18\,\alpha$ and $8\,\beta$ subunits that form 24 known integrins with distinct tissue distribution and overlapping ligand specificities (3). Integrins not only transmit signals to cells in response to the extracellular environment (outside-in signaling), but also sense intracellular cues to alter their interaction with the extracellular environment (inside-out signaling) (1,2). The $\beta 1$ subfamily includes 12 distinct integrin proteins that bind to different extracellular matrix molecules (4). Control of extracellular integrin binding influences cell adhesion and migration, while intracellular signaling messages relayed by the $\beta 1$ cytoplasmic tail help to regulate cell proliferation, cytoskeletal reorganization, and gene expression (4). 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 (4,5).

Background References

- 1. Liu, S. et al. (2000) J Cell Sci 113 (Pt 20), 3563-71.
- 2. Hood, J.D. and Cheresh, D.A. (2002) Nat Rev Cancer 2, 91-100.
- 3. van der Flier, A. and Sonnenberg, A. (2001) Cell Tissue Res 305, 285-98.
- 4. Brakebusch, C. and Fässler, R. (2005) Cancer Metastasis Rev 24, 403-11.
- 5. Mettouchi, A. and Meneguzzi, G. (2006) Eur J Cell Biol 85, 243-7.

Species Reactivity Species reactivity is determined by testing in at least one approved application (e.g., western blot).

Western Blot Buffer IMPORTANT: For western blots, incubate membrane with diluted primary antibody in 5% w/v BSA, 1X TBS,

0.1% Tween® 20 at 4°C with gentle shaking, overnight.

Applications Key

WB: Western Blotting IHC-P: Immunohistochemistry (Paraffin)

Cross-Reactivity Key

H: human M: mouse R: rat Hm: hamster Mk: monkey Vir: virus Mi: mink C: chicken Dm: D. melanogaster

X: Xenopus Z: zebrafish B: bovine Dg: dog Pg: pig Sc: S. cerevisiae Ce: C. elegans Hr: horse

GP: Guinea Pig Rab: rabbit All: all species expected

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