

**Integrin  $\beta$ 5 (D24A5) Rabbit mAb**

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**For Research Use Only. Not for Use in Diagnostic Procedures.**

Applications:	Reactivity:	Sensitivity:	MW (kDa):	Source/Isotype:	UniProt ID:	Entrez-Gene Id:
W, IP, IF-IC	H M R Mk	Endogenous	90	Rabbit IgG	#P18084	3693

**Product Usage Information****Application**

Western Blotting  
Immunoprecipitation  
Immunofluorescence (Immunocytochemistry)

**Dilution**

1:1000  
1:50  
1:1600

**Storage**

Supplied in 10 mM sodium HEPES (pH 7.5), 150 mM NaCl, 100  $\mu$ g/ml BSA, 50% glycerol and less than 0.02% sodium azide. Store at  $-20^{\circ}\text{C}$ . Do not aliquot the antibody.

**Specificity/Sensitivity**

Integrin  $\beta$ 5 (D24A5) Rabbit mAb detects endogenous levels of total integrin  $\beta$ 5 protein.

**Source / Purification**

Monoclonal antibody is produced by immunizing animals with a synthetic peptide corresponding to residues surrounding Lys789 of human integrin  $\beta$ 5 protein.

**Background**

Integrins are  $\alpha/\beta$  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  $\alpha$  and 8  $\beta$  subunits that form 24 known integrins having 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 extracellular environment (inside-out signaling) (1,2).

The  $\alpha$ V $\beta$ 5 integrin is expressed in various tissues and cell types, including endothelia, epithelia and fibroblasts (4). It plays a role in matrix adhesion to VN, FN, SPARC and bone sialoprotein (5) and functions in the invasion of gliomas and metastatic carcinoma cells (6,7).  $\alpha$ V $\beta$ 5 integrin plays a major role in growth-factor-induced tumor angiogenesis, where cooperative signaling by the  $\alpha$ V $\beta$ 5 integrin and growth factors regulates endothelial cell proliferation and survival (8).

**Background References**

- Hood, J.D. and Cheresch, D.A. (2002) *Nat. Rev. Cancer* 2, 91-100.
- Liu, S. et al. (2000) *J. Cell Sci.* 113, 3563-3571.
- van der Flier, A. and Sonnenberg, A. (2001) *Cell Tissue Res.* 305, 285-298.
- Pasqualini, R. et al. (1993) *J. Cell Sci.* 105, 101-111.
- Plow, E.F. et al. (2000) *J. Biol. Chem.* 275, 21785-21788.
- Sun, L.C. et al. (2007) *Cancer Lett.* 246, 157-166.
- Enns, A. et al. (2005) *Eur. J. Cancer* 41, 1065-1072.
- Alghisi, G.C. and Rüegg, C. (2006) *Endothelium* 13, 113-135.

**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  $4^{\circ}\text{C}$  with gentle shaking, overnight.

**Applications Key**

**W:** Western Blotting **IP:** Immunoprecipitation **IF-IC:** Immunofluorescence (Immunocytochemistry)

**Cross-Reactivity Key**

**H:** Human **M:** Mouse **R:** Rat **Mk:** Monkey

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