

#4708 Store at -20C

Integrin $\beta 5$ Antibody


Cell Signaling
TECHNOLOGY®

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

Applications:	Reactivity:	Sensitivity:	MW (kDa):	Source:	UniProt ID:	Entrez-Gene Id:
WB, IP, IF-IC	H	Endogenous	90	Rabbit	#P18084	3693

Product Usage Information

Application

Western Blotting
Immunoprecipitation
Immunofluorescence (Immunocytochemistry)

Dilution

1:1000
1:50
1:200

Storage

Supplied in 10 mM sodium HEPES (pH 7.5), 150 mM NaCl, 100 μ g/ml BSA and 50% glycerol. Store at –20°C. Do not aliquot the antibody.

Specificity / Sensitivity

Integrin $\beta 5$ Antibody detects endogenous levels of total integrin $\beta 5$ protein.

Source / Purification

Polyclonal antibodies are produced by immunizing animals with a synthetic peptide corresponding to residues surrounding Lys789 of human integrin $\beta 5$ protein. Antibodies are purified by protein A and peptide affinity chromatography.

Background

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 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 nonfat dry milk, 1X TBS, 0.1% Tween® 20 at 4°C with gentle shaking, overnight.

Applications Key

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

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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