Revision 3

#4707 Store at -20C

Integrin β4 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	H	Endogenous	210	Rabbit	#P16144	3691

Product Usage Information

Application	Dilution
Western Blotting	1:1000

Storage

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

Specificity / Sensitivity

Integrin β4 Antibody detects endogenous levels of total integrin β4 protein.

Source / Purification

Polyclonal antibodies are produced by immunizing animals with a synthetic peptide corresponding to residues surrounding Ser1812 of human integrin β4 protein. Antibodies are purified 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 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 extracellular environment (inside-out signaling) (1,2).Integrin β4 pairs with integrin α6 on the cell surface membrane to form the integrin α6β4 heterodimer, an important laminin receptor that is essential for hemidesmosome formation and the support of stable adhesions between basal epithelial cells and the basement membrane (4,5). Integrin β4 is an important component in several growth factor induced signaling pathways that are involved in tumorigenesis and invasive cell growth (6,7).

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. Schaapveld, R.Q. et al. (1998) *J Cell Biol* 142, 271-84.
5. Litjens, S.H. et al. (2006) *Trends Cell Biol* 16, 376-83.
6. Guo, W. et al. (2006) *Cell* 126, 489-502.
7. Bertotti, A. et al. (2006) *J Cell Biol* 175, 993-1003.

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

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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Limited Uses

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