

#14803 Store at -20°C

# Integrin $\beta 4$ (D8P6C) XP® Rabbit mAb



**Orders:** 877-616-CELL (2355)  
orders@cellsignal.com

**Support:** 877-678-TECH (8324)

**Web:** info@cellsignal.com  
cellsignal.com

3 Trask Lane | Danvers | Massachusetts | 01923 | USA

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

| Applications:    | Reactivity: | Sensitivity: | MW (kDa): | Source/Isotype: | UniProt ID: | Entrez-Gene Id: |
|------------------|-------------|--------------|-----------|-----------------|-------------|-----------------|
| WB, IHC-P, FC-FP | H           | Endogenous   | 210       | Rabbit IgG      | #P16144     | 3691            |

## Product Usage Information

### Application

Western Blotting  
Immunohistochemistry (Paraffin)  
Flow Cytometry (Fixed/Permeabilized)

### Dilution

1:1000  
1:200  
1:100

## 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  $\beta 4$  (D8P6C) XP® Rabbit mAb recognizes endogenous levels of total integrin  $\beta 4$  protein.

## Source / Purification

Monoclonal antibody is produced by immunizing animals with a synthetic peptide corresponding to residues near the carboxy terminus of human integrin  $\beta 4$  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 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  $\beta 4$  pairs with integrin  $\alpha 6$  on the cell surface membrane to form the integrin  $\alpha 6\beta 4$  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  $\beta 4$  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 Cheresch, 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 nonfat dry milk, 1X TBS, 0.1% Tween® 20 at  $4^{\circ}\text{C}$  with gentle shaking, overnight.

## Applications Key

**WB:** Western Blotting **IHC-P:** Immunohistochemistry (Paraffin) **FC-FP:** Flow Cytometry (Fixed/Permeabilized)

## 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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