

**Integrin  $\beta 3$  (D7X3P) XP<sup>®</sup> Rabbit mAb**

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

<b>Applications:</b> W, IHC-P	<b>Reactivity:</b> H M	<b>Sensitivity:</b> Endogenous	<b>MW (kDa):</b> 100	<b>Source/Isotype:</b> Rabbit IgG	<b>UniProt ID:</b> #P05106	<b>Entrez-Gene Id:</b> 3690
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**Product Usage Information****Application**

Western Blotting  
Immunohistochemistry (Paraffin)

**Dilution**

1:1000  
1:125 - 1:500

**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.

For a carrier-free (BSA and azide free) version of this product see product #29462.

**Specificity/Sensitivity**

Integrin  $\beta 3$  (D7X3P) XP<sup>®</sup> Rabbit mAb recognizes endogenous levels of total integrin  $\beta 3$  protein.

**Source / Purification**

Monoclonal antibody is produced by immunizing animals with a synthetic peptide corresponding to residues surrounding Ile114 of human integrin  $\beta 3$  protein.

**Background**

Integrins are 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 the extracellular environment (inside-out signaling) (1,2).  $\alpha\text{II}\beta 3$  and  $\alpha\text{V}\beta 3$  are the two  $\beta 3$  containing integrins which are prominently expressed in hematopoietic cells and angiogenic endothelial cells and perform adhesive functions in hemostasis, wound healing and angiogenesis (1,4). Tyr773 and Tyr785 (usually referred to as Tyr747 and Tyr759 based on the chicken sequence) are phosphorylated upon ligand binding (5). Phosphorylation of these tyrosine residues is required for certain ligand-induced signaling (6). Thr779 (corresponding to Thr753 of the chicken sequence) of integrin  $\beta 3$  in the platelet specific  $\alpha\text{II}\beta 3$  is phosphorylated by PKD and/or Akt, which may modulate integrin association with other signaling molecules (7).

**Background References**

- Liu, S. et al. (2000) *J Cell Sci* 113 ( Pt 20), 3563-71.
- Hood, J.D. and Cheresch, D.A. (2002) *Nat Rev Cancer* 2, 91-100.
- van der Flier, A. and Sonnenberg, A. (2001) *Cell Tissue Res* 305, 285-98.
- Shattil, S.J. (1995) *Thromb Haemost* 74, 149-55.
- Blystone, S.D. (2002) *J Biol Chem* 277, 46886-90.
- Butler, B. et al. (2003) *J Biol Chem* 278, 5264-70.
- Kirk, R.I. et al. (2000) *J Biol Chem* 275, 30901-6.

**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<sup>®</sup> 20 at  $4^{\circ}\text{C}$  with gentle shaking, overnight.

**Applications Key**

**W:** Western Blotting **IHC-P:** Immunohistochemistry (Paraffin)

**Cross-Reactivity Key**

**H:** Human **M:** Mouse

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