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#4702

Integrin β 3 Antibody

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

Applications: W	Reactivity: H M R Mk B	Sensitivity: Endogenous	MW (kDa): 97, 110, 130	Source/Isotype: Rabbit	UniProt ID: #P05106	Entrez-Gene Id: 3690
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Product Usage Information

Application

Western Blotting

Dilution

1:1000

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 beta3 Antibody detects endogenous levels of total integrin beta3. This antibody does not cross-react with other integrin isoforms.

Source / Purification

Polyclonal antibodies are produced by immunizing animals with synthetic peptides corresponding to human and mouse integrin beta3. Antibodies are purified by protein A and peptide affinity chromatography.

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 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 the extracellular environment (inside-out signaling) (1,2). α I β 3 and α V β 3 are the two β 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 β 3 in the platelet specific α I β 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® 20 at 4°C with gentle shaking, overnight.

Applications Key

W: Western Blotting

Cross-Reactivity Key

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

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