

phospho-Integrin β 4 (Tyr-1526) Peptide

Cat. # IX1295

Size 50 μ g

Background:

Integrins are cell adhesion molecules that can mediate bidirectional transfer of signals across the plasma membrane. The cytoplasmic domains of integrin family members interact with components of the signal transduction apparatus within cells. Integrin α 6 β 4 receptors are found in basement membrane along with laminin-5. These receptors are expressed in epithelial, schwann, endothelial and some immune cells. The cytoplasmic domain of the integrin- β 4 subunit recruits the adaptor protein Shc and is required for assembly of hemidesmosomes. Tyrosine phosphorylation of multiple sites within the cytoplasmic domain regulates these cellular events. In particular, tyrosine 1526 interacts with the phosphotyrosine binding domain of Shc and is required for Shc activation. In addition, tyrosine 1494 is required for integrin-mediated IRS-2 phosphorylation and activation of PI3-kinase. More importantly this site is critical for integrin α 6 β 4 increases in carcinoma invasion.

References

Shaw, L.M. (2001). Mol Cell Biol. 21(15):5082-5093.
Dans, M. et al. (2001). J Biol Chem. 276(2):1494-1502.

Peptide Sequence:

Phospho-Integrin- β 4 (Tyr-1526) synthetic peptide corresponds to amino acid residues around tyrosine 1526 of human Integrin- β 4. This peptide sequence is found in all three Integrin- β 4 isoforms and is highly conserved in rat and mouse Integrin- β 4.

Buffer and Storage:

Blocking Peptide is supplied in 50 μ l phosphate-buffered saline and 0.05% sodium azide. Store at -20° C. Stable for 1 year.

Applications:

Blocking 1:1,000

ELISA 50 ng/well

End user should determine optimal concentration dependent on the concentration of the antibody.
Recommended for blocking antibody reactivity in Western blot and immunocytochemistry.
ELISA established in 96-well Nunc immunoplates where peptide was bound to plates for 2 hrs in 0.1 M sodium carbonate buffer, pH 8.5.

Specificity:

The peptide is specifically recognized by anti-Integrin- β 4 (Tyr-1526) phospho-specific antibody (IP1291) in ELISA, and has been shown to block the reactivity of IP1291 during Western blot. In addition, the peptide is recommended for use in blocking IP1291 reactivity in immunocytochemistry.

Related Products:

IP1281 Integrin β 4 (Tyr-1494), phospho-specific Rabbit Polyclonal
IP1291 Integrin β 4 (Tyr-1526), phospho-specific Rabbit Polyclonal
IX1285 phospho-Integrin β 4 (Tyr-1494) Peptide

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