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# Anti-Integrin β4 (Tyr-1526), Phosphospecific Antibody

Catalog # AN1826

## Product Information

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|---|---|
| **Application** | WB, ICC |
| **Primary Accession** | P16144 |
| **Host** | Rabbit |
| **Clonality** | Rabbit Polyclonal |
| **Isotype** | IgG |
| **Calculated MW** | 202167 |

## Additional Information

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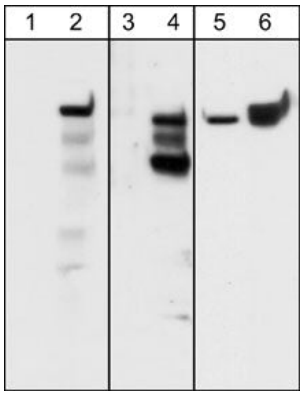
| **Gene ID** | 3691 |
| **Other Names** | integrin, CD104, GP150 |
| **Target/Specificity** | The NF-κB/Rel transcription factors are present in the cytosol in an inactive state complexed with the inhibitory IκB proteins. Activation of IκBα occurs through both serine and tyrosine phosphorylation events. Activation through phosphorylation at Ser-32 and Ser-36 is followed by proteasome-mediated degradation, resulting in the release and nuclear translocation of active NF-κB. This pathway of IκBα regulation occurs in response to various NF-κB-activating agents, such as TNFα, interleukins, LPS, and irradiation. An alternative pathway for IκBα regulation occurs through tyrosine phosphorylation of Tyr-42 and Tyr-305. Tyr-42 is phosphorylated in response to oxidative stress and growth factors. This phosphorylation can lead to degradation of IκBα and NF-κB-activation. In contrast, Tyr-305 phosphorylation by c-Abl has been implicated in IκBα nuclear translocation and inhibition of NF-κB-activation. Thus, tyrosine phosphorylation of IκBα may be an important regulatory mechanism in NF-κB signaling. |
| **Dilution** | WB~~1:1000 ICC~~N/A |
| **Storage** | Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles. |
| **Precautions** | Anti-Integrin β4 (Tyr-1526), Phosphospecific Antibody is for research use only and not for use in diagnostic or therapeutic procedures. |
| **Shipping** | Blue Ice |

## Background

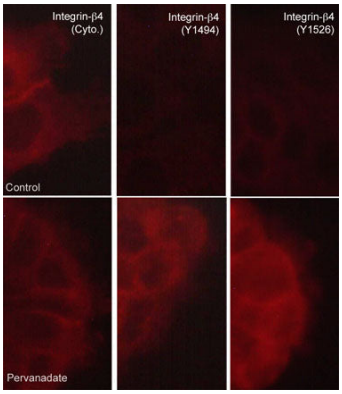
The NF-κB/Rel transcription factors are present in the cytosol in an inactive state complexed with the inhibitory IκB proteins. Activation of IκBα occurs through both serine and tyrosine phosphorylation events. Activation through phosphorylation at Ser-32 and Ser-36 is followed by proteasome-mediated degradation, resulting in the release and nuclear translocation of active NF-κB. This pathway of IκBα regulation occurs in

response to various NF-κB-activating agents, such as TNFα, interleukins, LPS, and irradiation. An alternative pathway for IκBα regulation occurs through tyrosine phosphorylation of Tyr-42 and Tyr-305. Tyr-42 is phosphorylated in response to oxidative stress and growth factors. This phosphorylation can lead to degradation of IκBα and NF-κB-activation. In contrast, Tyr-305 phosphorylation by c-Abl has been implicated in IκBα nuclear translocation and inhibition of NF-κB-activation. Thus, tyrosine phosphorylation of IκBα may be an important regulatory mechanism in NF-κB signaling.

## Images




Western blot analysis of A431 cells serum starved overnight (lanes 1, 3, & 5) and treated with pervanadate (1 mM) for 30 min (lanes 2, 4, & 6). The blots were probed with rabbit polyclonal anti-Integrin β4 (Tyr-1526) (lanes 1 & 2) and anti-Integrin β4 (Tyr-1494) (lanes 3 & 4) or with mouse monoclonal anti-Integrin β4 (lanes 5 & 6).




Immunocytochemical labeling of integrin β4 in control (Top) and pervanadate-treated A431 cells (Bottom). The cells were labeled with mouse monoclonal anti-integrin β4 (Cytoplasmic region) (left) or rabbit polyclonals anti-integrin β4 (Tyr-1494) (middle) or anti-integrin β4 (Tyr-1526) (right), then the antibodies were detected using appropriate secondary antibodies conjugated to DyLight® 594.