

Integrin $\beta 4$ Phospho-Regulation

Antibody Sampler Kit

Cat. # IK6270

Size Kit

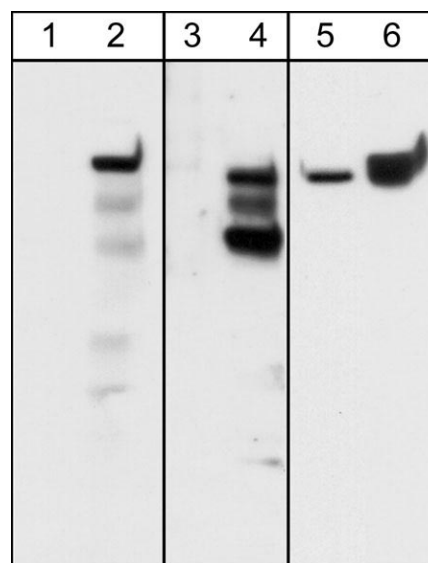
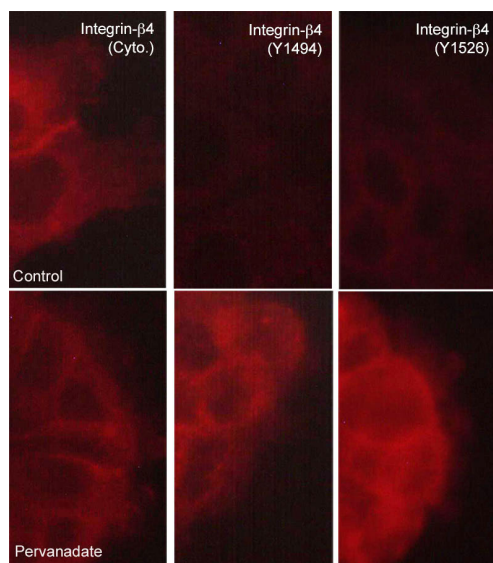
Kit Summary

The Integrin $\beta 4$ phospho-regulation antibody sampler kit can be used to detect phosphorylation of Integrin $\beta 4$ at Tyr-1494 and Tyr-1526. The kit also includes an antibody to examine total Integrin $\beta 4$ expression levels and secondary reagents for rabbit polyclonal and mouse monoclonal antibody detection.

Kit Components

Cat. #	Description	Product Type	Size	Applications	Species Reactivity	WB Dilution
IM1261	Integrin $\beta 4$ (Cytoplasmic Region)	Mouse mAb	50 μ l	WB, E, ICC	Hu	1:1000
IP1281	Integrin $\beta 4$ (Tyr-1494), phospho-specific	Rabbit pAb	50 μ l	WB, E, ICC	Hu, Rt, Ms	1:2000
IP1291	Integrin $\beta 4$ (Tyr-1526), phospho-specific	Rabbit pAb	50 μ l	WB, E, ICC	Hu, Rt, Ms	1:1000
MS3001	Anti-Mouse Ig:HRP	Donkey pAb	100 μ l	WB, E	Ms	1:5000
RS3251	Anti-Rabbit Ig Light-Chain Specific:HRP	Mouse mAb	100 μ l	WB, E, ICC, IHC	Rb	1:5000

Applications: WB = Western blot, E = ELISA, ICC = Immunocytochemistry, IP = Immunoprecipitation, IHC = Immunohistochemistry, FC = Flow Cytometry
Species: H = Human, R = Rat, M = Mouse, C = Chicken, F = Fish, Fr = Frog, Rb = Rabbit



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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 $\alpha 6\beta 4$ 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- $\beta 4$ 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 $\alpha 6\beta 4$ increases in carcinoma invasion.

Background References

Dans, M. et al. (2001). J Biol Chem. 276(2):1494-1502.

Shaw, L.M. (2001). Mol Cell Biol. 21(15):5082-5093.

Buffer and Storage

Mouse monoclonal and rabbit polyclonal antibodies are supplied in phosphate-buffered saline, 50% glycerol, 1 mg/ml BSA, and 0.05% sodium azide. The secondary reagents are supplied in the same buffer without azide. Store all at -20°C . Stable for 1 year.

Product Citations

Cat. # Citation & Application

- | | |
|--------|---|
| IP1281 | Kim, H.I. et al. (2008) Cancer Prev Res. 1(5):385. (WB: human b4 transfectants) |
| IP1281 | Yang, X. et al. (2010) Mol Cell Biol. 30(22):5306. (WB: Y1494F mutants) |
| IP1281 | Soung, Y. & Chung, J. (2011) Mol Cancer Ther. 10(5):883. (WB: human A431, MDA-MB-231) |
| IP1281 | Soung, Y.H. et al. (2013) BMC Cell Biol. 1:14. (WB: MDA-MB-231, MDA-MB-435) |
| IP1281 | Coleman, D.T. et al. (2015) PLoS One. 10(5):e0125399 (WB: HCC-1806, MCF-10A) |
| MS3001 | Estrada-Bernal, A. et al. (2011) J Neurooncol. 102:353. (Western Blot) |
| RS3251 | Estrada-Bernal, A. et al. (2011) J Neurooncol. 102:353. (Western Blot) |
| RS3251 | Kawasaki, H. et al. (2013) World J Gastroenter. 19(17):2629. (WB, ICC: mouse intestinal myofibroblasts) |

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