

Anti-Phospho-Tyr³³¹ EphrinB Antibody



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Catalog #: p1110-331

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Host	Applications	Species Tested	Species Reactivity*	Molecular Reference
Rabbit	WB 1:1000	M, R	B, Ch, H, X, Z	~46 kDa

Product Description: Affinity purified rabbit polyclonal antibody.

Biological Significance: EphrinB proteins are thought to play key roles in cellular functions as diverse as neuronal migration and blood vessel development (Flanagan and Vanderhaeghen, 1998; Dufour et al., 2003; Oike et al., 2002). EphrinB molecules expressed at the membrane surface bind to the EphB family receptors on target cells during cell-to-cell contact. This interaction leads to cell signaling in the target cell but also generates a reverse signal in the cell expressing EphrinB on its surface. This reverse signaling event is thought to be critical for vessel maturation and neuronal development. Importantly, tyrosine phosphorylation of EphrinB is thought to be a critical component of this reverse signaling event (Palmer et al., 2002). Recent work demonstrated that Tyr³³¹ of EphrinB was phosphorylated in HEK293 cells after stimulation by the soluble EphB2 receptor tyrosine kinase (Kalo et al., 2001).

Antigen: Phosphopeptide corresponding to amino acid residues surrounding the phospho-Tyr³³¹ of chicken EphrinB.

Note: Chicken Tyr³³¹ is the homolog of mouse and rat Tyr³⁴³, human Tyr³⁴⁴ and also *Xenopus* Tyr³²⁴.

Antibody Specificity: Specific for endogenous levels of the ~46 kDa EphrinB protein phosphorylated at Tyr³³¹.

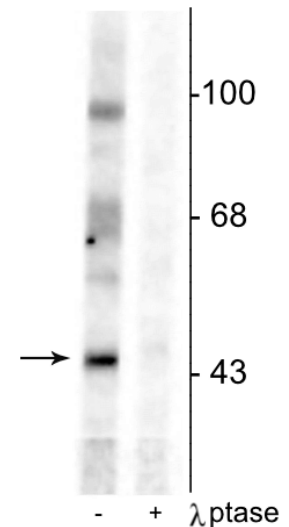
Immunolabeling is completely eliminated by treatment with λ-Ptase.

Purification Method: Prepared from pooled rabbit serum by affinity purification via sequential chromatography on phospho and non-phosphopeptide affinity columns.

Quality Control Tests: Western blots performed on each lot.

Packaging: 100 µl in 10 mM HEPES (pH 7.5), 150 mM NaCl, 100 µg BSA per ml and 50% glycerol.

Storage and Stability: Shipped on blue ice. Storage at -20°C is recommended, as aliquots may be taken without freeze/thawing due to presence of 50% glycerol. Stable for at least 1 year at -20°C.



Western blot of rat testes lysate showing specific immunolabeling of the ~46 kDa EphrinB phosphorylated at Tyr³³¹ in the first lane (-). Phosphospecificity is shown in the second lane (+) where immunolabeling is completely eliminated by lysate treatment with *lambda* phosphatase (λ-Ptase, 800 units/1mg protein for 30 min).

General References:

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Oike, Y., Ito, Y., Hamada, K., Zhang, X.Q., Miyata, K., Arai, F., Inada, T., Araki, K., Nakagata, N., Takeya, M., Kisanuki, Y.Y., Yanagisawa, M., Gale, N.W. and Suda, T, Regulation of vasculogenesis and angiogenesis by EphB/ephrin-B2 signaling between endothelial cells and surrounding mesenchymal cells, *Blood* 100:1326-1333 (2002).

Palmer, A., Zimmer, M., Erdmann, K.S., Eulenburg, V., Porthin, A., Heumann, R., Deutsch, U. and Klein, R Ephrin B phosphorylation and reverse signaling: regulation by Src kinases and PTP-BL Phosphatase, *Mol Cell* 9:725-737 (2002).