Anti-Phospho-Tyr^{317} EphrinB Antibody

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Catalog #: p1110-317 **Size:** 100 µl

Cite this Antibody: PhosphoSolutions Cat# p1110-317, RRID:AB_2492087

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 suggests that phosphorylation of a specific EphrinB residue (Tyr^{298}) plays a key role in EphrinB signaling (Kalo, et al., 2001).

Antigen: Phosphopeptide corresponding to amino acid residues surrounding the phospho Tyr^{317} of Chicken EphrinB.
Note: Chicken Tyr^{317} is the homolog of rat and mouse Tyr^{328}, human Tyr^{329} and *Xenopus* Tyr^{310}.

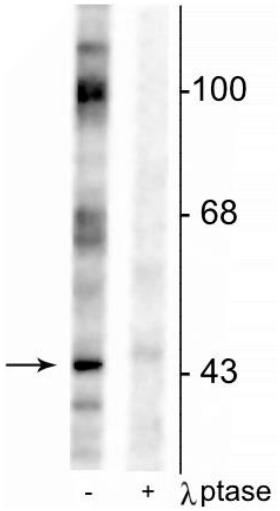
Antibody Specificity: Specific for endogenous levels of the ~46 kDa EphrinB protein phosphorylated at Tyr^{317}. Immunolabeling is completely eliminated by treatment with λ-Ptase.

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 Tyr^{317} in the first lane (-). Phosphospecificity is shown in the second lane (+) where immunolabeling is completely eliminated by blot treatment with *lambda* phosphatase (λ-Ptase, 1200 units for 30 min).

Application Key: **WB** = Western Blot **IF** = Immunofluorescence **IHC** = Immunohistochemistry **IP** = Immunoprecipitation
Species Reactivity Key: **All**-All Species **A**-Avian **Amp**-Amphibian **Ar**-*Arabidopsis* **B**-Bovine **C**-Canine **Ch**-Chicken **D**-*Drosophila* **G**-Goat **GP**-Guinea Pig **H**-Human **Ha**-Hamster **M**-Mouse **NHP**- Non-human primate **P**-Pig **R**-Rat **S**-Sheep **X**-*Xenopus* **Z**-Zebrafish
*Species assumed based on 100% homology with sequence used as antigen **For Research Use Only**

Product Specific References:

Weirong Xing, Jonghyun Kim, Jon Wergedal, Shin-Tai Chen, and Subburaman Mohan (2010) Ephrin B1 Regulates Bone Marrow Stromal Cell Differentiation and Bone Formation by Influencing TAZ Transactivation via Complex Formation with NHERF1. Mol. Cell. Biol., 30: 711 - 721.

General References:

Bong, Y.S., Park, Y.H., Lee, H.S., Mood, K., Ishimura, A. and Daar, I.O. Tyr-298 in ephrinB1 is critical for an interaction with the Grb4 adaptor protein, Biochem. J. 377:499-507 (2004).

Dufour, A., Seibt, J., Passante, L., Depaepe, V., Ciossek, T., Frisen, J., Kullander, K., Flanagan, J.G., Polleux, F. and Vanderhaeghen, P. Area specificity and topography of thalamocortical projections are controlled by ephrin/Eph genes, Neuron 39:453-465 (2003).

Flanagan, J.G. and Vanderhaeghen, P. The ephrins and Eph receptors in neural development, Annu. Rev. Neurosci. 21:309-345 (1998).

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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).