

DESCRIPTION

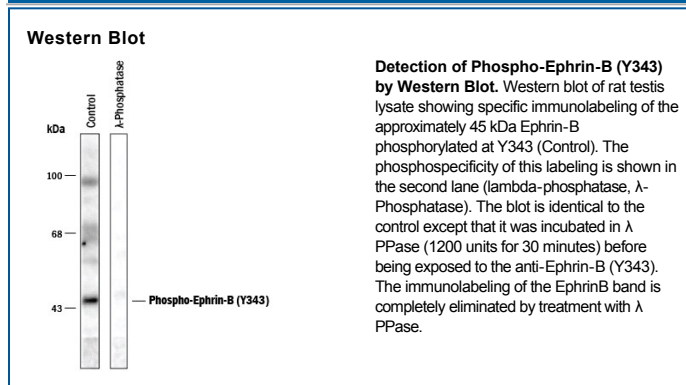
Species Reactivity	Human/Mouse/Rat/Chicken/Xenopus
Specificity	This antibody is specific for the ~45 kDa Ephrin-B phosphorylated at Y343 in Western blots of rat testis.
Source	Polyclonal Rabbit IgG
Purification	Antigen Affinity-purified
Immunogen	Phosphopeptide corresponding to amino acid residues surrounding the phospho-Y331 of chicken Ephrin-B
Formulation	100 µL in 10 mM HEPES (pH 7.5), 150 mM NaCl, 100 µg/mL BSA and 50% glycerol. See Certificate of Analysis for details.

APPLICATIONS

Please Note: Optimal dilutions should be determined by each laboratory for each application. *General Protocols* are available in the *Technical Information* section on our website.

	Recommended Concentration	Sample
Western Blot	1:1000 dilution	See Below

DATA



PREPARATION AND STORAGE

Shipping	The product is shipped with polar packs. Upon receipt, store it immediately at the temperature recommended below.
Stability & Storage	For long-term storage, ≤ -20° C is recommended. Product is stable at ≤ -20° C for at least 1 year.

BACKGROUND

Ephrin-B1 (from ephoros; Greek for controller) is a 45 kDa, type I transmembrane glycoprotein found on a number of highly divergent cell types. It is a ligand for the Eph family of receptor tyrosine kinases, principally EphB1, 2 and 3. It participates in angiogenesis, T cell development and activation, platelet adhesion, neural crest migration and axonal patterning. In rodent, Ephrin-B1 contains a 212 amino acid (aa) extracellular domain (ECD) and an 88 aa cytoplasmic region. The ECD exhibits a characteristic four Cysteine pattern, while the cytoplasmic region displays a three aa C-terminal PZD binding motif (Tyr-Lys-Val). Upon receptor ligation, Ephrin-B1 is known to be phosphorylated on tyrosine residues. Based on motifs that are seven amino acids in length, three tyrosines are conserved, Xenopus to chicken to human to rodent (mouse; rat). The first tyrosine is Xenopus Y298, chicken Y305, human Y317, and rodent Y316. This is contained in a common CPHYEKV motif. The second tyrosine is Xenopus Y310, chicken Y317, human Y329, and rodent Y328. This is contained in a common HPVYIVQ motif. The third tyrosine is Xenopus Y324, chicken Y331, human Y343, and rodent Y343 that is contained in a common ANIYYKV motif. Phosphorylation on rodent Y316 results in SH2-containing Grb4 interaction. Phosphorylation of rodent Y328 and Y343 may contribute to receptor oligomerization and/or interaction with trimeric G-proteins. Based on Ephrin-B2 studies, rodent Y328 may also participate in SH2-domain binding.

References:

1. Flanagan, J.C. and P. Vanderhaeghen (1998) *Annu. Rev. Neurosci.* **21**:309.
2. Heroult, M. *et al.* (2006) *Exp. Cell Res.* **312**:642.
3. Kalo, M.S. *et al.* (2001) *J. Biol. Chem.* **276**:38940.
4. Bong, Y-S. *et al.* (2004) *Biochem. J.* **377**:499.
5. Song, J. (2003) *J. Biol. Chem.* **278**:24714.