Human/Mouse/Rat/Chicken/*Xenopus* Phospho-Ephrin-B (Mouse/Rat Y328) Antibody

Antigen Affinity-purified Polyclonal Rabbit IgG

Catalog Number: PPS048

DESCRIPTION

Species Reactivity	Human/Mouse/Rat/Chicken/*Xenopus*
Specificity	This antibody is specific for the ~45 kDa Ephrin-B phosphorylated at Y328 in Western blots of rat testis.
Source	Polyclonal Rabbit IgG
Purification	Antigen Affinity-purified
Immunogen	Phosphopeptide corresponding to amino acid residues surrounding the phospho-Y317 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.

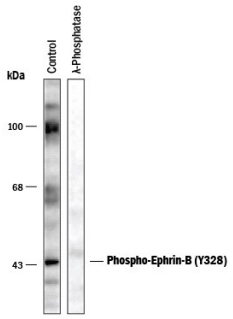
APPLICATIONS

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

Western Blot



Detection of Phospho-Ephrin-B (Y328) by Western Blot. Western blot of rat testis lysate showing specific immunolabeling of the approximately 45 kDa Ephrin-B phosphorylated at Y328 (Control). The phosphospecificity of this labeling is shown in the second lane (lambda-phosphatase, λ-Phosphatase). The blot is identical to the control except that it was incubated in λ PPase (1200 units for 30 minutes) before being exposed to the anti-Ephrin-B (Y328). The immunolabeling of the Ephrin-B band is completely eliminated by treatment with λ PPase.

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 Cystein 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:

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2. Heroult, M. *et al*. (2006) Exp. Cell Res. **312**:642.
3. Kalo, M.S. *et al*. (2001) J. Biol. Chem. **276**:38940.
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5. Song, J. (2003) J. Biol. Chem. **278**:24714.

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