

Anti-EphA4 (Tyr-602) [conserved site], Phosphospecific Antibody Catalog # AN1779

Specification

Anti-EphA4 (Tyr-602) [conserved site], Phosphospecific Antibody - Product Information

Application WB
Primary Accession P54764

Reactivity Bovine, Chicken

Host Rabbit

Clonality Rabbit Polyclonal

Isotype IgG
Calculated MW 109860

Anti-EphA4 (Tyr-602) [conserved site], Phosphospecific Antibody - Additional Information

Gene ID 2043

Other Names SEK, Eph

Target/Specificity

The Eph family of Receptor tyrosine kinases and their Ephrin ligands are important for cell positioning and morphogenesis during development. Eph receptors are classified into 10 EphA and 6 EphB receptors, which preferentially bind to the type A and type B ephrins, respectively. The EphA4 receptor can inhibit axon outgrowth and has roles in regulating axon projections during neural development. EphA4 signaling pathways require its kinase activity and involve binding and activation of Rho-GTPase guanine nucleotide-exchange factors (GEFs). EphA4 activation leads autophosphorylation of Tyr-596 and Tyr-602, and the conserved sites in EphA2 are required for binding to the GEFs, Vav2 and Vav3, and ephrin-induced cell migration. The Tyr-779 site in the kinase domain is also phosphorylated in vivo and may regulate kinase activity. Activated EphA4 leads to Src kinase phosphorylation of the GEF, ephexin-1, and this activates RhoA. Thus, EphA4 signaling involves complex tyrosine phosphorylation in its cytoplasmic region along with interaction with several GEFs.

Dilution

WB~~1:1000

Storage

Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

Precautions

Anti-EphA4 (Tyr-602) [conserved site], Phosphospecific Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

Shipping

Blue Ice

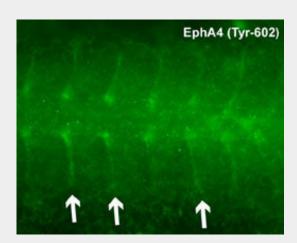
Anti-EphA4 (Tyr-602) [conserved site], Phosphospecific Antibody - Protocols



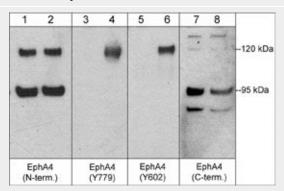
Provided below are standard protocols that you may find useful for product applications.

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- <u>Immunoprecipitation</u>
- Flow Cytomety
- Cell Culture

Anti-EphA4 (Tyr-602) [conserved site], Phosphospecific Antibody - Images



Paraformaldehyde-fixed zebrafish embryos were probed with anti-EphA4 (Tyr-602) (EP2731) then detected using Alexa Fluor 647 goat anti-rabbit. Arrows show labeling of somite boundaries and the notochord. (Image provided by Dr. Scott Holley at the Department of Molecular, Cellular and Developmental Biology, Yale University.)



Western blot analysis of human umbilical vein endothelial cells untreated (lanes 1, 3, 5, & 7) or treated with pervanadate (1 mM) for 30 min. (lanes 2, 4, 6, & 8). The blot was probed with anti-EphA4 (N-terminal region) (lanes 1 & 2), anti-EphA4 (Tyr-779) (lanes 3 & 4), anti-EphA4 (Tyr-602) (lanes 5 & 6), or anti-EphA4 (C-terminal region) (lanes 7 & 8).

Anti-EphA4 (Tyr-602) [conserved site], Phosphospecific Antibody - Background

The Eph family of Receptor tyrosine kinases and their Ephrin ligands are important for cell positioning and morphogenesis during development. Eph receptors are classified into 10 EphA and 6 EphB receptors, which preferentially bind to the type A and type B ephrins, respectively. The EphA4 receptor can inhibit axon outgrowth and has roles in regulating axon projections during neural development. EphA4 signaling pathways require its kinase activity and involve binding and





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