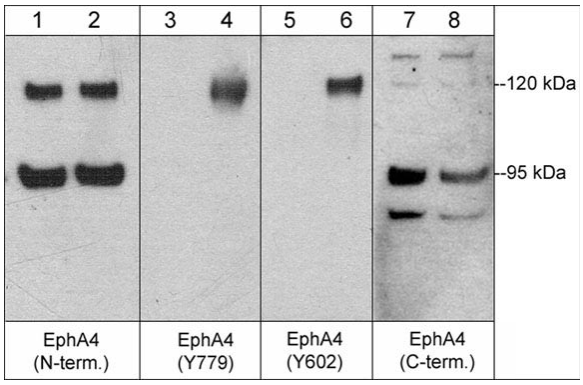
EphA4 (C-terminal region)

Rabbit Polyclonal

Cat. # EP2711
Size 100 µl

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 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.



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).

Background References

Binns, K.L. et al. (2000) Mol. Cell. Biol. 20(13):4791.
Fang, W.B. et al. (2008) J. Biol. Chem. 283(23):16017.
Lackmann, M. & Boyd, A.W. (2008). Sci. Signal. 1(15):re2.

Applications

WB	1:1000
ELISA	1:2000

End user should determine optimal dilution for their particular applications and experiments.
Western blot membranes were incubated with diluted antibody in 5% non-fat milk, PBS, 0.04% Tween20 for 1 hour at room temperature.

Species Reactivity

Hu, Rt, Ms

Specificity

This antibody was affinity purified with EphA4 (C-terminal region) peptide. The purified antibody detects 95 and 120 kDa* bands corresponding to EphA4 in Western blots of HUVEC cells and mouse brain tissue.

*All molecular weights (MW) are confirmed by comparison to Bio-Rad Rainbow Markers and to western blot mobilities of known proteins with similar MW.

Immunogen

Uniprot ID: P54764

EphA4 synthetic peptide (coupled to carrier protein) corresponds to amino acids in the C-terminal region of human EphA4. This sequence has significant homology to the conserved site in rat and mouse EphA4, and has low homology to other EphA and EphB family members.

Buffer and Storage

Rabbit polyclonal, affinity-purified antibody is supplied in 100µl phosphate-buffered saline, 50% glycerol, 1 mg/ml BSA, and 0.05% sodium azide. Store at –20°C. Stable for 1 year.

Related Products

EM2801	EphA4 (N-terminal region) Mouse Monoclonal
EP2731	EphA4 (Tyr-602))[conserved site], phospho-specific Rabbit Polyclonal
EP2751	EphA4 (Tyr-779)[conserved site], phospho-specific Rabbit Polyclonal
EX2715	EphA4 (C-terminal region) Blocking Peptide
EP2821	Ephexin-1 (C-terminal region) Rabbit Polyclonal

Product References

Hameetman, L. et al. (2015) Oncotarget. 6(31):31868.
WB/IHC: PC3 cells, Prostate carcinoma

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