

Background

The Eph family of receptor tyrosine kinases, and their ephrin ligands, are important for cell positioning and morphogenesis during development. EphA4 receptor can inhibit axon outgrowth and has roles in regulating axon projections during neural development. Eph signaling pathways require both receptor kinase activity and activation of Rho-GTPase guanine nucleotide-exchange factors (GEFs). Ephexin-1 is a Dbl family GEF that may be important for regulating Rho GTPase activity downstream of EphA4/FGFR complexes. EphA4 activation leads to Src kinase phosphorylation of Tyr-87 in ephexin-1, which enhances activation of RhoA, but not Rac1 or Cdc42. In addition, ephexin-1 also binds FGFRs, and is phosphorylated at Tyr-87, as well as other tyrosine sites.

Background References

Shamah, S.M. et al. (2001) Cell 105:233.
Sahin, M. et al. (2005) Neuron 46:191.
Zhang, Y. et al. (2007) J Biol Chem. 282(42):31103.

Applications

Blocking 1:1000
ELISA 50 ng/well

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.

Specificity

This peptide is recognized by ephexin-1 (C-terminal region) antibody (EP2821) in ELISA, and has been shown to block the reactivity of EP2821 in Western blot, and is recommended for blocking in immunocytochemistry.

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

Peptide Sequence

Ephexin-1 synthetic peptide corresponding to amino acids within the C-terminal region of mouse ephexin-1. This sequence has significant homology to the conserved site in human and rat ephexin-1, and has low homology to other known proteins.

Buffer and Storage

Blocking Peptide is supplied in 50µl phosphate-buffered saline and 0.05% sodium azide.
Store at -20°C. Stable for 1 year.

Related Products

EP2711 EphA4 (C-terminal region) Rabbit Polyclonal
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
EP2821 Ephexin-1 (C-terminal region) Rabbit Polyclonal

FOR RESEARCH USE ONLY. NOT FOR DIAGNOSTIC OR THERAPEUTIC USE.