

## Mouse Epha4 Antibody (Center)

Catalog\_no: AB2981

Reactivity: H, M

Category: 抗原抗体

Size:  $100\mu L/50\mu L$ 

Immunogen: HUMAN

Specificity: This Mouse Epha4 antibody is generated from a rabbit immunized with a KLH

conjugated synthetic peptide between 309-342 amino acids from the Central region of

human Mouse Epha4.

Dilution: WB,1:1000;

Other\_name: Ephrin type-A receptor 4, Tyrosine-protein kinase receptor MPK-3, Tyrosine-protein

kinase receptor SEK-1, Epha4, Sek, Sek1

Isotype: Rabbit Ig

Background: Receptor tyrosine kinase which binds membrane-bound ephrin family ligands residing

on adjacent cells, leading to contact-dependent bidirectional signaling into neighboring cells. The signaling pathway downstream of the receptor is referred to as forward signaling while the signaling pathway downstream of the ephrin ligand is referred to as reverse signaling. Highly promiscuous, it has the unique property among Eph receptors

to bind and to be physiologically activated by both GPI-anchored ephrin-A and

transmembrane ephrin-B ligands including EFNA1 and EFNB3. Upon activation by ephrin ligands, modulates cell morphology and integrin-dependent cell adhesion through regulation of the Rac, Rap and Rho GTPases activity. Plays an important role in the development of the nervous system controlling different steps of axonal guidance including the establishment of the corticospinal projections. May also control the segregation of motor and sensory axons during neuromuscular circuit development. Beside its role in axonal guidance plays a role in synaptic plasticity. Activated by EFNA1 phosphorylates CDK5 at 'Tyr-15' which in turn phosphorylates NGEF regulating RHOA and dendritic spine morphogenesis. In the nervous system, plays also a role in repair after injury preventing axonal regeneration and in angiogenesis playing a role in central nervous system vascular formation. Additionally, its promiscuity makes it available to

the thymic epithelium.

reference: Gilardi-Hebenstreit P., et al. Oncogene 7:2499-2506(1992). Gilardi-Hebenstreit P., et

al.Oncogene 8:1103-1103(1993). Carninci P.,et al.Science 309:1559-1563(2005). Mural

participate in a variety of cell-cell signaling regulating for instance the development of

R.J., et al. Submitted (JUL-2005) to the EMBL/GenBank/DDBJ databases. Ellis C., et al.