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Mouse Ephb3 Antibody (Center)

Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP20993a

Product Information

Application	WB, E
Primary Accession	P54754
Reactivity	Human, Mouse
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Clone Names	RB50405
Calculated MW	109662

Additional Information

Gene ID	13845
Other Names	Ephrin type-B receptor 3, Developmental kinase 5, mDK-5, Tyrosine-protein kinase receptor SEK-4, Ephb3, Etk2, Mdk5, Sek4
Target/Specificity	This Mouse Ephb3 antibody is generated from a rabbit immunized with a KLH conjugated synthetic peptide between 350-382 amino acids from the Central region of Mouse Ephb3.
Dilution	WB~~1:500-1:1000 E~~Use at an assay dependent concentration.
Format	Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein A column, followed by peptide affinity purification.
Storage	Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.
Precautions	Mouse Ephb3 Antibody (Center) is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	Ephb3
Synonyms	Etk2, Mdk5, Sek4
Function	Receptor tyrosine kinase which binds promiscuously transmembrane ephrin-B 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. Generally has an overlapping and redundant function with EPHB2. Like EPHB2, functions in axon guidance during development regulating for instance the neurons forming the corpus callosum and the anterior commissure, 2 major interhemispheric connections between the temporal lobes of the cerebral cortex. In addition to its role in axon guidance also plays an important redundant role with other ephrin-B receptors in development and maturation of dendritic spines and the formation of excitatory synapses. Controls other aspects of development through regulation of cell migration and positioning. This includes angiogenesis, palate development and thymic epithelium development for instance. Forward and reverse signaling through the EFNB2/EPHB3 complex also regulate migration and adhesion of cells that tubularize the urethra and septate the cloaca. Finally, plays an important role in intestinal epithelium differentiation segregating progenitor from differentiated cells in the crypt.
Cellular Location	Cell membrane; Single-pass type I membrane protein. Cell projection, dendrite
Tissue Location	Expressed in cells of the retinal ganglion cell layer during retinal axon guidance to the optic disk. Expressed by Paneth and progenitor cells in the crypts of the intestinal epithelium (at protein level). Expressed in myogenic progenitor cells (PubMed:27446912).

Background

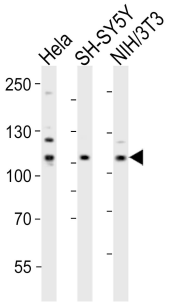
Receptor tyrosine kinase which binds promiscuously transmembrane ephrin-B family ligands residing on adjacent cells, leading to contact-dependent bidirectional signaling into neighboring cells. The signaling pathway downstream of the receptor is referred to as forward signaling while the signaling pathway downstream of the ephrin ligand is referred to as reverse signaling. Generally has an overlapping and redundant function with EPHB2. Like EPHB2, functions in axon guidance during development regulating for instance the neurons forming the corpus callosum and the anterior commissure, 2 major interhemispheric connections between the temporal lobes of the cerebral cortex. Beside its role in axon guidance plays also an important redundant role with other ephrin-B receptors in development and maturation of dendritic spines and the formation of excitatory synapses. Controls other aspects of development through regulation of cell migration and positioning. This includes angiogenesis, palate development and thymic epithelium development for instance. Forward and reverse signaling through the EFNB2/EPHB3 complex also regulate migration and adhesion of cells that tubularize the urethra and septate the cloaca. Finally, plays an important role in intestinal epithelium differentiation segregating progenitor from differentiated cells in the crypt.

References

Ciossek T.,et al.Oncogene 11:2085-2095(1995).
Becker N.,et al.Mech. Dev. 47:3-17(1994).
Orioli D.,et al.EMBO J. 15:6035-6049(1996).
Adams R.H.,et al.Genes Dev. 13:295-306(1999).
Imondi R.,et al.Development 127:1397-1410(2000).

Images

Western blot analysis of lysates from Hela. SH-SY5Y, mouse NIH/3T3 cell line (from left to right), using Ephb3 Antibody (Center)(Cat. #AP20993a). AP20993a was diluted



at 1:1000 at each lane. A goat anti-rabbit IgG H&L(HRP) at 1:10000 dilution was used as the secondary antibody. Lysates at 20ug per lane.