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ROBO1 Antibody (C-Term)

Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP21950b

Product Information

Application	WB, E
Primary Accession	Q9Y6N7
Reactivity	Human, Rat, Mouse
Host	Rabbit
Clonality	polyclonal
Isotype	Rabbit IgG
Clone Names	RB54414
Calculated MW	180930

Additional Information

Gene ID	6091
Other Names	Roundabout homolog 1, Deleted in U twenty twenty, H-Robo-1, ROBO1, DUTT1
Target/Specificity	This ROBO1 antibody is generated from a rabbit immunized with a KLH conjugated synthetic peptide between 1097-1130 amino acids from human ROBO1.
Dilution	WB~~1:1000-1:2000 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	ROBO1 Antibody (C-Term) is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	ROBO1
Synonyms	DUTT1
Function	Receptor for SLIT1 and SLIT2 that mediates cellular responses to molecular guidance cues in cellular migration, including axonal navigation at the ventral midline of the neural tube and projection of axons to different regions during

	neuronal development (PubMed:10102268, PubMed:24560577). Interaction with the intracellular domain of FLRT3 mediates axon attraction towards cells expressing NTN1 (PubMed:24560577). In axon growth cones, the silencing of the attractive effect of NTN1 by SLIT2 may require the formation of a ROBO1-DCC complex (By similarity). Plays a role in the regulation of cell migration via its interaction with MYO9B; inhibits MYO9B-mediated stimulation of RHOA GTPase activity, and thereby leads to increased levels of active, GTP-bound RHOA (PubMed:26529257). May be required for lung development (By similarity).
Cellular Location	Cell membrane; Single-pass type I membrane protein. Cell projection, axon {ECO:0000250|UniProtKB:O89026}. Endoplasmic reticulum-Golgi intermediate compartment membrane {ECO:0000250|UniProtKB:O55005}; Single-pass membrane protein {ECO:0000250|UniProtKB:O55005} Note=Detected at growth cones in thalamus neurons. Detected at growth cones in thalamus neurons (By similarity). PRRG4 prevents cell surface location and both colocalize in the Endoplasmic reticulum/Golgi adjacent to the cell nucleus (By similarity) {ECO:0000250|UniProtKB:O55005, ECO:0000250|UniProtKB:O89026}
Tissue Location	Widely expressed, with exception of kidney.

Background

Receptor for SLIT1 and SLIT2 which are thought to act as molecular guidance cue in cellular migration, including axonal navigation at the ventral midline of the neural tube and projection of axons to different regions during neuronal development. In axon growth cones, the silencing of the attractive effect of NTN1 by SLIT2 may require the formation of a ROBO1-DCC complex. May be required for lung development.

References

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Muzny D.M.,et al.Nature 440:1194-1198(2006).
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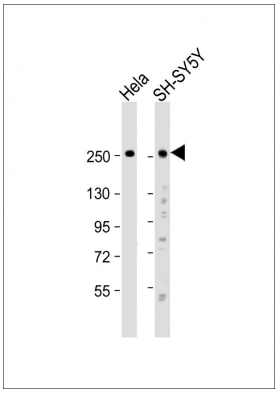
Bechtel S.,et al.BMC Genomics 8:399-399(2007).
Brose K.,et al.Cell 96:795-806(1999).

Images



All lanes : Anti-ROBO1 Antibody (C-Term) at 1:1000-1:2000 dilution Lane 1: Hela whole cell lysate Lane 2: SH-SY5Y whole cell lysate Lysates/proteins at 20 µg per lane. Secondary Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated at 1/10000 dilution. Predicted band size : 181 kDa Blocking/Dilution buffer: 5% NFDM/TBST.