

KIAA1598 Rabbit pAb

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Catalog # AP54652

Product Information

Application	WB, IHC-P, IHC-F, IF
Primary Accession	A0MZ66
Reactivity	Rat, Human
Predicted	Pig, Mouse, Horse
Host	Rabbit
Clonality	Polyclonal
Calculated MW	71640
Physical State	Liquid
Immunogen	KLH conjugated synthetic peptide derived from human KIAA1598
Epitope Specificity	21-130/631
Isotype	IgG
Purity	affinity purified by Protein A
Buffer	0.01M TBS (pH7.4) with 1% BSA, 0.02% Proclin300 and 50% Glycerol.
SUBCELLULAR LOCATION	Cell projection.
Important Note	This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.
Background Descriptions	Shootin1 is a 631 amino acid protein that belongs to the shootin family. The shootin1 protein contains three coiled-coil domains, a proline-rich region and interacts with RUFY3. Shootin1 is involved in the generation of internal asymmetric signals required for neuronal polarization. The shootin1 protein acts upstream of PI3K (phosphoinositide 3-kinase), by being required for spatially localized PI3K activity. By accumulating asymmetrically in a single neurite before polarization, shootin1 leads to axon induction for polarization, additionally the absence of shootin1 from the nascent axon's siblings by competition prevents the formation of surplus axons. Existing as seven alternatively spliced isoforms, the shootin1 gene is conserved in chimpanzee, dog, mouse, rat, chicken and zebrafish, and maps to human chromosome 10q25.3.

Additional Information

Gene ID	57698
Other Names	Shootin-1 {ECO:0000312 HGNC:HGNC:29319}, Shootin1, SHTN1 (HGNC:29319), KIAA1598
Dilution	WB=1:500-2000,IHC-P=1:100-500,IHC-F=1:100-500,IF=1:100-500
Storage	Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. When reconstituted in sterile pH 7.4 0.01M PBS or diluent of antibody the antibody is stable for at least two weeks at 2-4 °C.

Protein Information

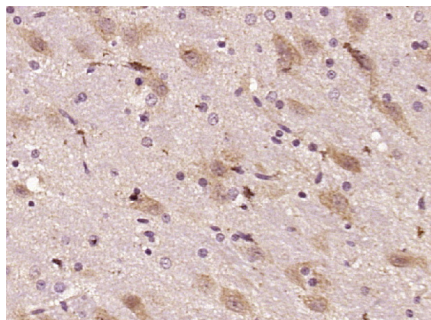
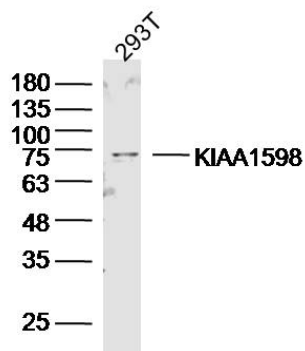
Name	SHTN1 (HGNC:29319)
Synonyms	KIAA1598
Function	Involved in the generation of internal asymmetric signals required for neuronal polarization and neurite outgrowth. Mediates netrin-1-induced F-actin-substrate coupling or 'clutch engagement' within the axon growth cone through activation of CDC42, RAC1 and PAK1- dependent signaling pathway, thereby converting the F-actin retrograde flow into traction forces, concomitantly with filopodium extension and axon outgrowth. Plays a role in cytoskeletal organization by regulating the subcellular localization of phosphoinositide 3-kinase (PI3K) activity at the axonal growth cone. Also plays a role in regenerative neurite outgrowth. In the developing cortex, cooperates with KIF20B to promote both the transition from the multipolar to the bipolar stage and the radial migration of cortical neurons from the ventricular zone toward the superficial layer of the neocortex. Involved in the accumulation of phosphatidylinositol 3,4,5-trisphosphate (PIP3) in the growth cone of primary hippocampal neurons.
Cellular Location	Perikaryon {ECO:0000250 UniProtKB:Q8K2Q9}. Cell projection, axon {ECO:0000250 UniProtKB:Q8K2Q9}. Cell projection, growth cone {ECO:0000250 UniProtKB:Q8K2Q9}. Cytoplasm, cytoskeleton {ECO:0000250 UniProtKB:Q8K2Q9}. Cell projection, filopodium {ECO:0000250 UniProtKB:A0MZ67}. Cell projection, lamellipodium {ECO:0000250 UniProtKB:A0MZ67}. Note=Localizes in multiple growth cones at neurite tips before the neuronal symmetry-breaking step. Accumulates in growth cones of a single nascent axon in a neurite length-dependent manner during the neuronal symmetry-breaking step; when absent from the nascent axon's siblings, probably due to competitive transport, prevents the formation of surplus axons. Transported anterogradely from the soma to the axon growth cone in an actin and myosin-dependent manner and passively diffuses back to the cell bodies. Colocalized with L1CAM in close apposition with actin filaments in filopodia and lamellipodia of axonal growth cones in hippocampal neurons. Exhibits retrograde movements in filopodia and lamellopodia of axonal growth cones. Colocalized with KIF20B along microtubules to the tip of the growing cone in primary hippocampal neurons. Recruited to the growth cone of developing axon in a KIF20B- and microtubule-dependent manner {ECO:0000250 UniProtKB:A0MZ67, ECO:0000250 UniProtKB:Q8K2Q9}

Background

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Images

Sample:293T Cell (Human) Lysate at 40 ug
Primary: Anti-KIAA1598(AP54652)at 1/300 dilution
Secondary: IRDye800CW Goat Anti-Rabbit IgG at 1/20000 dilution
Predicted band size: 72kD
Observed band size: 72kD



Paraformaldehyde-fixed, paraffin embedded (Rat brain); Antigen retrieval by boiling in sodium citrate buffer (pH6.0) for 15min; Block endogenous peroxidase by 3% hydrogen peroxide for 20 minutes; Blocking buffer (normal goat serum) at 37°C for 30min; Antibody incubation with (KIAA1598) Polyclonal Antibody, Unconjugated (AP54652) at 1:400 overnight at 4°C, followed by operating according to SP Kit(Rabbit) (sp-0023) instructions and DAB staining.

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.