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Shootin1 Antibody

Store at -20C
#3279

For Research Use Only. Not for Use in Diagnostic Procedures.

Applications: W, IP	Reactivity: H M R	Sensitivity: Endogenous	MW (kDa): 60	Source/Isotype: Rabbit	UniProt ID: #A0MZ66	Entrez-Gene Id: 57698
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Product Usage Information

Application

Western Blotting
Immunoprecipitation

Dilution

1:1000
1:100

Storage

Supplied in 10 mM sodium HEPES (pH 7.5), 150 mM NaCl, 100 µg/ml BSA and 50% glycerol. Store at -20°C. Do not aliquot the antibody.

Specificity/Sensitivity

Shootin1 Antibody detects endogenous levels of total shootin1 protein.

Source / Purification

Polyclonal antibodies are produced by immunizing animals with a synthetic peptide surrounding Lys450 of human shootin1. Antibodies are purified by peptide affinity chromatography.

Background

The differentiation process of neurons can be divided into five stages, each stage characterized by morphological changes observed in the developing cells. In stage 1, the cells extend lamellipodia and in stage 2 their lamellipodia develop into immature neurites. In stage 3 one neurite elongates rapidly to form an axon and in stage 4 the remaining immature neuritis elongate to form dendrites. In stage 5 synaptic contacts are formed and a neuronal network is established (1). Shootin1 is involved in generating internal asymmetric signals required for neuronal during stages 2 and 3. The extension of an axon requires considerable reorganization of the cytoskeleton mediated by PI3K/Akt and PI3K/Cdc42 signaling (1). Shootin1 is involved in regulating the subcellular localization of PI3 kinase. Furthermore, shootin1 is upregulated during polarization and accumulates asymmetrically in a single neurite that consequently elongates rapidly to form an axon (2).

Background References

1. Yoshimura, T. et al. (2006) *J Neurosci* 26, 10626-30.
2. Toriyama, M. et al. (2006) *J Cell Biol* 175, 147-57.

Species Reactivity

Species reactivity is determined by testing in at least one approved application (e.g., western blot).

Western Blot Buffer

IMPORTANT: For western blots, incubate membrane with diluted primary antibody in 5% w/v BSA, 1X TBS, 0.1% Tween® 20 at 4°C with gentle shaking, overnight.

Applications Key

W: Western Blotting **IP:** Immunoprecipitation

Cross-Reactivity Key

H: Human **M:** Mouse **R:** Rat

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