

shootin1 (I-16): sc-244129

BACKGROUND

Shootin1, also known as KIAA1598, 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, canine, mouse, rat, chicken and zebrafish, and maps to human chromosome 10q25.3.

REFERENCES

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CHROMOSOMAL LOCATION

Genetic locus: KIAA1598 (human) mapping to 10q25.3; 4930506M07Rik (mouse) mapping to 19 D3.

SOURCE

shootin1 (I-16) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of shootin1 of human origin.

PRODUCT

Each vial contains 200 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-244129 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

shootin1 (I-16) is recommended for detection of shootin1 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

shootin1 (I-16) is also recommended for detection of shootin1 in additional species, including equine, canine and porcine.

Suitable for use as control antibody for shootin1 siRNA (h): sc-90680, shootin1 siRNA (m): sc-153453, shootin1 shRNA Plasmid (h): sc-90680-SH, shootin1 shRNA Plasmid (m): sc-153453-SH, shootin1 shRNA (h) Lentiviral Particles: sc-90680-V and shootin1 shRNA (m) Lentiviral Particles: sc-153453-V.

Molecular Weight of shootin1 isoforms 1/2/3/4: 72/53/74/63 kDa.

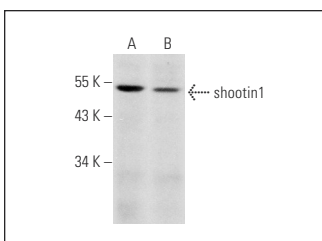
Molecular Weight of shootin1 isoforms 5/6/7: 65/68/24 kDa.

Positive Controls: mouse heart extract: sc-2254 or rat heart extract: sc-2393.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker[™] compatible donkey anti-goat IgG-HRP: sc-2033 (dilution range: 1:2000-1:5000), Cruz Marker[™] Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz[™] Mounting Medium: sc-24941.

DATA



shootin1 (I-16): sc-244129. Western blot analysis of shootin1 expression in mouse heart (A) and rat heart (B) tissue extracts.

STORAGE

Store at 4° C, ****DO NOT FREEZE****. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

RESEARCH USE

For research use only, not for use in diagnostic procedures.