SANTA CRUZ BIOTECHNOLOGY, INC.

Akirin1 (S-14): sc-241183

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

Numerous invertebrates retain a single Akirin family member, coorthologous to two paralogs (Akirin1 and Akirin2) created by a genomic duplication in the vertebrate stem of chordates. Although Akirin1 is lost in avians, amphibians and mammals preserve both paralogs. Akirin1, also known as STRF2 or Mighty, is a 192 amino acid protein belonging to the Akirin family. Encoded by a gene that maps to human chromosome 1p34.3, Akirin1 localizes to nucleus and is widely expressed, with high expression in heart, liver, placenta and peripheral blood leukocytes. Present in macrophages, Akirin1 is a downstream myostatin target that is downregulated in skeletal muscle. Conversely, Akirin1 is upregulated in activated satellite cells and in regenerating muscle, indicating involvement in muscle regeneration. Linked to chemotaxis of macrophages and myoblasts, Akirin1 is present in both proliferating and differentiating myoblasts, and is involved in post mitotic differentiation and hypertrophy of myotubes.

REFERENCES

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5. Macqueen, D.J., et al. 2009. Evolution of the multifaceted eukaryotic akirin gene family. BMC Evol. Biol. 9: 34.
6. Galindo, R.C., et al. 2009. Tick subolesin is an ortholog of the akirins described in insects and vertebrates. Dev. Comp. Immunol. 33: 612-617.
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CHROMOSOMAL LOCATION

Genetic locus: AKIRIN1 (human) mapping to 1p34.3.

SOURCE

Akirin1 (S-14) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of Akirin1 of human origin.

STORAGE

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

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-241183 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

Akirin1 (S-14) is recommended for detection of Akirin1 of human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), 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); non cross-reactive with Akirin2.

Akirin1 (S-14) is also recommended for detection of Akirin1 in additional species, including equine, canine and bovine.

Suitable for use as control antibody for Akirin1 siRNA (h): sc-78783, Akirin1 shRNA Plasmid (h): sc-78783-SH and Akirin1 shRNA (h) Lentiviral Particles: sc-78783-V.

Molecular Weight of Akirin1: 22 kDa.

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) 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.

RESEARCH USE

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

PROTOCOLS

See our web site at www.scbt.com or our catalog for detailed protocols and support products.