

α -actinin-1 (NQ-B35): sc-134235

BACKGROUND

The spectrin gene family encodes a diverse group of cytoskeletal proteins that include spectrins, dystrophins and α -actinins. There are four tissue-specific α -actinins, namely α -actinin-1, α -actinin-2, α -actinin-3 and α -actinin-4, which are localized to muscle and non-muscle cells, including skeletal, cardiac and smooth muscle cells, as well as within the cytoskeleton. Each α -actinin protein contains one Actin-binding domain, two calponin-homology domains, two EF-hand domains and four spectrin repeats, through which they function as bundling proteins that can cross-link F-Actin, thus anchoring Actin to a variety of intracellular structures. Defects in the gene encoding α -actinin-4 are the cause of focal segmental glomerulosclerosis 1 (FSGS1), a common renal lesion characterized by decreasing kidney function and, ultimately, renal failure.

REFERENCES

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STORAGE

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

PROTOCOLS

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

CHROMOSOMAL LOCATION

Genetic locus: ACTN1 (human) mapping to 14q24.1.

SOURCE

α -actinin-1 (NQ-B35) is a mouse monoclonal antibody raised against recombinant α -actinin-1 protein of human origin.

PRODUCT

Each vial contains 100 μ g IgG₃ in 1.0 ml PBS with < 0.1% sodium azide and 0.1% gelatin.

APPLICATIONS

α -actinin-1 (NQ-B35) is recommended for detection of α -actinin-1 of human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 μ g per 100-500 μ g of total protein (1 ml of cell lysate)] and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

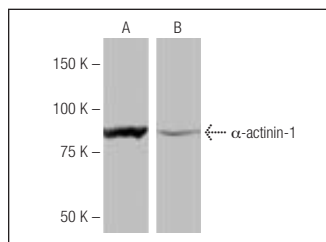
Suitable for use as control antibody for α -actinin-1 siRNA (h): sc-43095, α -actinin-1 shRNA Plasmid (h): sc-43095-SH and α -actinin-1 shRNA (h) Lentiviral Particles: sc-43095-V.

Molecular Weight of α -actinin-1: 100 kDa.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-mouse IgG-HRP: sc-2005 (dilution range: 1:2000-1:32,000) or Cruz Marker™ compatible goat anti-mouse IgG-HRP: sc-2031 (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).

DATA



α -actinin-1 (NQ-B35): sc-134235. Western blot analysis of α -actinin-1 expression in human α -actinin-1 transfected (A) and non-transfected (B) 293T whole cell lysates.

RESEARCH USE

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