

α -actinin-4 (h): 293T Lysate: sc-176191

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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CHROMOSOMAL LOCATION

Genetic locus: ACTN4 (human) mapping to 19q13.2.

RESEARCH USE

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

PRODUCT

α -actinin-4 (h): 293T Lysate represents a lysate of human α -actinin-4 transfected 293T cells and is provided as 100 μ g protein in 200 μ l SDS-PAGE buffer.

APPLICATIONS

α -actinin-4 (h): 293T Lysate is suitable as a Western Blotting positive control for human reactive α -actinin-4 antibodies. Recommended use: 10-20 μ l per lane.

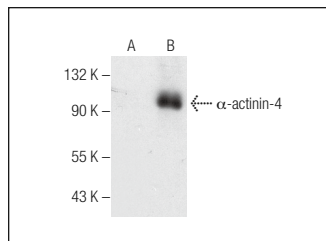
Control 293T Lysate: sc-117752 is available as a Western Blotting negative control lysate derived from non-transfected 293T cells.

α -actinin-4 (B-11): sc-390180 is recommended as a positive control antibody for Western Blot analysis of enhanced human α -actinin-4 expression in α -actinin-4 transfected 293T cells (starting dilution 1:100, dilution range 1:100-1:1,000).

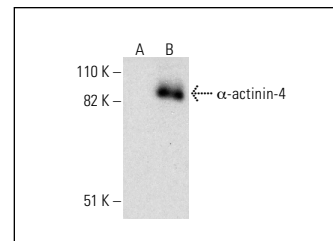
RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended:
1) Western Blotting: use m-IgG κ BP-HRP: sc-516102 or m-IgG κ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 and Western Blotting Luminol Reagent: sc-2048.

DATA



α -actinin-4 (B-11): sc-390180. Western blot analysis of α -actinin-4 expression in non-transfected: sc-117752 (A) and human α -actinin-4 transfected: sc-176191 (B) 293T whole cell lysates.



α -actinin-4 (B-11): sc-390180. Western blot analysis of α -actinin-4 expression in non-transfected: sc-117752 (A) and human α -actinin-4 transfected: sc-176191 (B) 293T whole cell lysates.

STORAGE

Store at -20° C. Repeated freezing and thawing should be minimized. Sample vial should be boiled once prior to use. Non-hazardous. No MSDS required.

PROTOCOLS

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