



SZABO SCANDIC

Part of Europa Biosite

Produktinformation



Forschungsprodukte & Biochemikalien



Zellkultur & Verbrauchsmaterial



Diagnostik & molekulare Diagnostik



Laborgeräte & Service

Weitere Information auf den folgenden Seiten!
See the following pages for more information!



Lieferung & Zahlungsart

siehe unsere [Liefer- und Versandbedingungen](#)

Zuschläge

- Mindermengenzuschlag
- Trockeneiszuschlag
- Gefahrgutzuschlag
- Expressversand

SZABO-SCANDIC HandelsgmbH

Quellenstraße 110, A-1100 Wien

T. +43(0)1 489 3961-0

F. +43(0)1 489 3961-7

mail@szabo-scandic.com

www.szabo-scandic.com

[linkedin.com/company/szaboscandic](https://www.linkedin.com/company/szaboscandic) 

α -actinin-1 (h): 293T Lysate: sc-176604

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

1. Yousoufian, H., McAfee, M. and Kwiatkowski, D.J. 1990. Cloning and chromosomal localization of the human cytoskeletal α -actinin gene reveals linkage to the β -spectrin gene. *Am. J. Hum. Genet.* 47: 62-71.
2. Nishiyama, M., Ozturk, M., Frohlich, M., Mafune, K., Steele, G. and Wands, J.R. 1990. Expression of human α -actinin in human hepatocellular carcinoma. *Cancer Res.* 50: 6291-6294.
3. Yürüker, B. and Niggli, V. 1992. α -actinin and vinculin in human neutrophils: reorganization during adhesion and relation to the Actin network. *J. Cell Sci.* 101: 403-414.
4. Knudsen, K.A., Soler, A.P., Johnson, K.R. and Wheelock, M.J. 1995. Interaction of α -actinin with the cadherin/catenin cell-cell adhesion complex via α -catenin. *J. Cell Biol.* 130: 67-77.
5. Reinhard, M., Zumbunn, J., Jaquemar, D., Kuhn, M., Walter, U. and Trueb, B. 1999. An α -actinin binding site of Zyxin is essential for subcellular Zyxin localization and α -actinin recruitment. *J. Biol. Chem.* 274: 13410-13418.
6. Harper, B.D., Beckerle, M.C. and Pomiès, P. 2000. Fine mapping of the α -actinin binding site within cysteine-rich protein. *Biochem. J.* 350: 269-274.
7. Gonzalez, A.M., Otey, C., Edlund, M. and Jones, J.C. 2001. Interactions of a hemidesmosome component and actinin family members. *J. Cell Sci.* 114: 4197-4206.
8. Bois, P.R., Borgon, R.A., Vonrhein, C. and Izard, T. 2005. Structural dynamics of α -actinin-vinculin interactions. *Mol. Cell. Biol.* 25: 6112-6122.
9. Nyman-Huttunen, H., Tian, L., Ning, L. and Gahmberg, C.G. 2006. α -actinin-dependent cytoskeletal anchorage is important for ICAM-5-mediated neuritic outgrowth. *J. Cell Sci.* 119: 3057-3066.

CHROMOSOMAL LOCATION

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

PRODUCT

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

APPLICATIONS

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

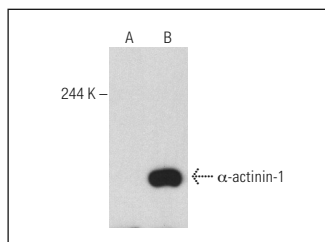
Control 293T Lysate: sc-117752 is available as a Western Blotting negative control lysate derived from non-transfected 293T cells.

α -actinin (B-12): sc-166524 is recommended as a positive control antibody for Western Blot analysis of enhanced human α -actinin expression in α -actinin 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 (B-12): sc-166524. Western blot analysis of α -actinin-1 expression in non-transfected: sc-117752 (A) and human α -actinin-1 transfected: sc-176604 (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.

RESEARCH USE

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

PROTOCOLS

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