SANTA CRUZ BIOTECHNOLOGY, INC.

Nischarin (h): 293T Lysate: sc-116146

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

Integrins play important roles in key cellular functions, including cytoskeletal organization, growth, survival, motility and gene expression regulation. Nischarin is a novel intracellular protein, that binds to the cytoplasmic domain of Integrin $\alpha 5/\beta 1$ and interacts with various members of the PAK family of kinases. Nischarin binding to PAK1 inhibits the ability of PAK1 to phosphorylate substrates. When bound, this complex localizes to membrane ruffles which are involved in cell motility. Nischarin also acts as an antagonist of Rac function on cell movement and alters Actin filament organization. These functions give Nischarin a possible role in cell migration regulation. Nischarin is a primarily cytoplasmic protein primarily expressed in kidney and brain.

REFERENCES

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2. Alahari, S.K., Reddig, P.J. and Juliano, R.L. 2004. The Integrin-binding protein Nischarin regulates cell migration by inhibiting Pak. EMBO J. 23: 2777-2788.
3. Dontenwill, M., Piletz, J.E., Chen, M., Baldwin, J., Pascal, G., Ronde, P., Dupuy, L., Greney, H., Takeda, K. and Bousquetd, P. 2004. IRAS is an anti-apoptotic protein. Ann. N.Y. Acad. Sci. 1009: 400-412.
4. Chen, M.J., Zhu, H.E. and Piletz, J.E. 2004. Intracellular effect of imidazoline receptor on α_{2A}-noradrenergic receptor. Ann. N.Y. Acad. Sci. 1009: 427-438.
5. Zhu, H., Hayes, J., Chen, M., Baldwin, J. and Piletz, J.E. 2004. Relationship between platelet imidazoline receptor-binding peptides and candidate imidazoline-1 receptor, IRAS. Ann. N.Y. Acad. Sci. 1009: 439-446.

CHROMOSOMAL LOCATION

Genetic locus: NISCH (human) mapping to 3p21.1.

PRODUCT

Nischarin (h): 293T Lysate represents a lysate of human Nischarin transfected 293T cells and is provided as 100 µg protein in 200 µl SDS-PAGE buffer.

RESEARCH USE

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

APPLICATIONS

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

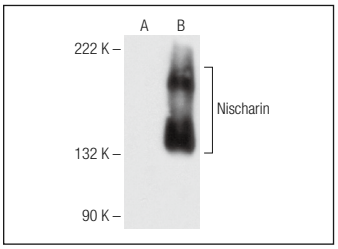
Control 293T Lysate: sc-117752 is available as a Western Blotting negative control lysate derived from non-transfected 293T cells.

Nischarin (D-1): sc-374407 is recommended as a positive control antibody for Western Blot analysis of enhanced human Nischarin expression in Nischarin 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-IgGκ BP-HRP: sc-516102 or m-IgGκ 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



Nischarin (D-1): sc-374407. Western blot analysis of Nischarin expression in non-transfected: sc-117752 (**A**) and human Nischarin transfected: sc-116146 (**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.