



Nischarin (h2): 293T Lysate: sc-116650

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

1. Lim, K.P. and Hong, W. 2004. Human Nischarin/imidazoline receptor antisera-selected protein is targeted to the endosomes by a combined action of a PX domain and a coiled-coil region. *J. Biol. Chem.* 279: 54770-54782.
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 (h2): 293T Lysate represents a lysate of human Nischarin transfected 293T cells and is provided as 100 μ g protein in 200 μ l SDS-PAGE buffer.

APPLICATIONS

Nischarin (h2): 293T Lysate is suitable as a Western Blotting positive control for human reactive Nischarin 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.

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.