



IQGAP1 (m): 293T Lysate: sc-127016

BACKGROUND

IQGAP1, for IQ motif containing GTPase activating protein, is a RasGAP-related, Actin-binding protein that interacts with the small GTPases Cdc42 and Rac1. The C-terminus of IQGAP1 is essential for interacting with Cdc42 and, in addition, IQGAP1 contains a WW domain and a predicted N-terminal coiled-coil region, which may be involved in IQGAP dimerization. Expression of IQGAP1 is highest in placenta, lung and kidney, where it co-localizes with Cdc42 to the cytoskeleton and assists with Cdc42 in mediating the regulation of cell proliferation, polarity and cell morphology. IQGAP1 regulates cadherin-mediated cell adhesion via binding to E-cadherin, β -catenin and α -catenin. This association induces the accumulation of these proteins at the site of cell-cell contact. IQGAP1 is negatively regulated by calmodulin, which binds to IQGAP1 in a calcium-dependent manner and disrupts IQGAP1 from associating with Cdc42.

REFERENCES

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2. Kuroda, S., et al. 1996. Identification of IQGAP as a putative target for the small GTPases, Cdc42 and Rac1. *J. Biol. Chem.* 271: 23363-23367.
3. Bashour, A.M., et al. 1997. IQGAP1, a Rac- and Cdc42-binding protein, directly binds and cross-links microfilaments. *J. Cell Biol.* 137: 1555-1566.
4. Joyal, J.L., et al. 1997. Calmodulin modulates the interaction between IQGAP1 and Cdc42. *J. Biol. Chem.* 272: 15419-15425.
5. Erickson, J.W., et al. 1997. Identification of an actin cytoskeletal complex that includes IQGAP and the Cdc42 GTPase. *J. Biol. Chem.* 272: 24443-24447.
6. McCallum, S.J., et al. 1998. Characterization of the association of the actin-binding protein, IQGAP, and activated Cdc42 with Golgi membranes. *J. Biol. Chem.* 273: 22537-22544.
7. Faix, J., et al. 1998. The IQGAP-related protein DGAP1 interacts with Rac and is involved in the modulation of the F-actin cytoskeleton and control of cell motility. *J. Cell Sci.* 111: 3059-3071.

CHROMOSOMAL LOCATION

Genetic locus: Iqgap1 (mouse) mapping to 7 D3.

PRODUCT

IQGAP1 (m): 293T Lysate represents a lysate of mouse IQGAP1 transfected 293T cells and is provided as 100 μ g protein in 200 μ l SDS-PAGE buffer.

APPLICATIONS

IQGAP1 (m): 293T Lysate is suitable as a Western Blotting positive control for mouse reactive IQGAP1 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.