

IQGAP2 (H-209): sc-11413

BACKGROUND

IQGAP1 and IQGAP2 are RasGAP-related Actin binding proteins that interact with the small GTPases Cdc42 and Rac1 and regulate cadherin-mediated cell-cell adhesion. IQGAP1 and IQGAP2 share largely related sequence similarity, and both contain a putative calponin domain, a single WW domain, four conserved IQ or calmodulin-binding domains, and a RasGAP domain. IQGAP1 binds preferentially to the GTP S-bound form of Cdc42, whereas IQGAP2 associates with both nucleotide-bound and nucleotide-free forms of Cdc42. In addition to binding Cdc42, IQGAP1 and IQGAP2 also bind Rac1, F-Actin and calmodulin. The binding of IQGAP proteins to Cdc42 and Rac1 inhibits their intrinsic and RhoGAP-stimulated GTPase activities, which thereby maintains Cdc42 and Rac1 in their active GTP-bound state.

REFERENCES

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2. Brill, S., Li, S., Lyman, C.W., Church, D.M., Wasmuth, J.J., Weissbach, L., Bernards, A. and Snijders, A.J. 1996. The Ras GTPase-activating-protein-related human protein IQGAP2 harbors a potential Actin binding domain and interacts with calmodulin and Rho family GTPases. *Mol. Cell. Biol.* 16: 4869-4878.
3. Zhang, B., Wang, Z.X. and Zheng, Y. 1997. Characterization of the interactions between the small GTPase Cdc42 and its GTPase-activating proteins and putative effectors. Comparison of kinetic properties of Cdc42 binding to the Cdc42-interactive domains. *J. Biol. Chem.* 272: 21999-22007.
4. Ho, Y.D., Joyal, J.L., Li, Z. and Sacks, D.B. 1999. IQGAP1 integrates Ca²⁺/calmodulin and Cdc42 signaling. *J. Biol. Chem.* 274: 464-470.
5. Li, Z., Kim, S.H., Higgins, J.M., Brenner, M.B. and Sacks, D.B. 1999. IQGAP1 and calmodulin modulate E-cadherin function. *J. Biol. Chem.* 274: 37885-37892.
6. Li, S., Wang, Q., Chakladar, A., Bronson, R.T. and Bernards, A. 2000. Gastric hyperplasia in mice lacking the putative Cdc42 effector IQGAP1. *Mol. Cell. Biol.* 20: 697-701.

CHROMOSOMAL LOCATION

Genetic locus: IQGAP2 (human) mapping to 5q13.

SOURCE

IQGAP2 (H-209) is a rabbit polyclonal antibody raised against amino acids 519-727 mapping within an internal region of IQGAP2 of human origin.

PRODUCT

Each vial contains 200 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

RESEARCH USE

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

APPLICATIONS

IQGAP2 (H-209) is recommended for detection of IQGAP2 of human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for IQGAP2 siRNA (h): sc-35702, IQGAP2 shRNA Plasmid (h): sc-35702-SH and IQGAP2 shRNA (h) Lentiviral Particles: sc-35702-V.

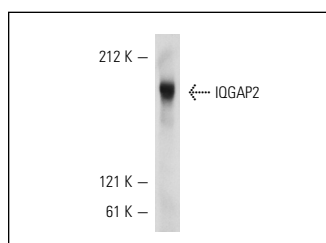
Molecular Weight of IQGAP2: 180 kDa.

Positive Controls: Hep G2 cell lysate: sc-2227.

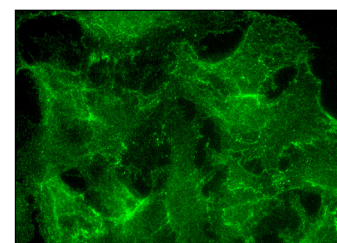
RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible goat anti-rabbit IgG-HRP: sc-2030 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use goat anti-rabbit IgG-FITC: sc-2012 (dilution range: 1:100-1:400) or goat anti-rabbit IgG-TR: sc-2780 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

DATA



IQGAP2 (H-209): sc-11413. Western blot analysis of IQGAP2 expression in Hep G2 whole cell lysate.



IQGAP2 (H-209): sc-11413. Immunofluorescence staining of methanol-fixed Hep G2 cells showing membrane and cytoskeletal localization.

STORAGE

Store at 4° C, **DO NOT FREEZE**. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

MONOS
Satisfaction
Guaranteed

Try **IQGAP2 (A-4): sc-17835** or **IQGAP2 (C-3): sc-55525**, our highly recommended monoclonal alternatives to IQGAP2 (H-209).