3050 Spruce Street, St. Louis, MO 63103 USA
Tel: (800) 521-8956 (314) 771-5765 Fax: (800) 325-5052 (314) 771-5757
email: techservice@sial.com sigma-aldrich.com

Product Information

Anti-IQGAP1
produced in rabbit, affinity isolated antibody

Catalog Number **SAB4200329**

Product Description

Anti-IQGAP1 is produced in rabbit using as immunogen a synthetic peptide corresponding to a sequence near the C-terminal region of human IQGAP1 (GeneID 8826), conjugated to KLH. The corresponding sequence is identical in mouse IQGAP1. The antibody is affinity-purified using the immunizing peptide immobilized on agarose.

Anti-IQGAP1 specifically recognizes human, rat and mouse IQGAP1. The antibody can be used in several immunochemical techniques including immunoblotting (~189 kDa), immunoprecipitation and immunohistochemistry. Detection of the IQGAP1 band by immunoblotting is specifically inhibited by the IQGAP1 immunizing peptide.

IQGAP1 (IQ motif containing GTPase activating protein1, also known as SAR1, p195), is a scaffolding protein that regulates multiple cellular functions, including transcription, actin cytoskeleton organization, cell-cell adhesion and cell migration.[1-3] IQGAP1 associates with a wide array of proteins, including actin, calmodulin, E-cadherin, β-catenin, CLIP-170 and components of the MAP kinase pathway.[2,3] IQGAP1 is a multi-domain protein containing multiple protein-interacting motifs through which it interacts with its binding partners. The N-terminal calponin-homology domain (CHD) binds F-actin. The WW domain binds ERK2 and its IQ domain binds calmodulin, myosin light chain and S110B. The GAP-related domain (GRD) mediates the binding to the small GTPases, Cdc42 and Rac1. The C-terminal RasGAP domain has been reported to interact with E-cadherin and β-catenin, CLIP-170 and APC. IQGAP1 has been shown to colocalize with Cdc42 to the cytoskeleton and with actin in lamellipodia and ruffling cell membranes, thus regulating cell proliferation, cell polarity and migration.[4] IQGAP1 is up-regulated in a number of carcinomas, including colorectal, lung, ovary and breast carcinoma, suggesting that it plays a role in tumorigenesis.[5,6]

Reagent

Supplied as a solution in 0.01 M phosphate buffered saline, pH 7.4, containing 15 mM sodium azide as a preservative.

Antibody Concentration: ~1.5 mg/mL

Precautions and Disclaimer

This product is for R&D use only, not for drug, household, or other uses. Please consult the Material Safety Data Sheet for information regarding hazards and safe handling practices.

Storage/Stability

For continuous use, store at 2-8 °C for up to one month. For extended storage, freeze in working aliquots. Repeated freezing and thawing, or storage in "frost-free" freezers, is not recommended. If slight turbidity occurs upon prolonged storage, clarify the solution by centrifugation before use. Working dilutions should be discarded if not used within 12 hours.

Product Profile

Immunoblotting: a working concentration of 0.5-1 µg/mL is recommended using NIH3T3 cell extracts.

Immunoprecipitation: A working amount of 5-10 µg is recommended using NRK cell lysates.

Immunohistochemistry: A working concentration of 10-20 µg/mL is recommended using formalin-fixed paraffin-embedded human colon.

Note: In order to obtain the best results using various techniques and preparations, we recommend determining the optimal working dilutions by titration.

References

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