

Product Information

Anti-IQGAP1 (C-terminal region)

produced in rabbit, affinity isolated antibody

Product Number **SAB4200079**

Product Description

Anti-IQGAP1 (C-terminal region) is produced in rabbit using as the immunogen a synthetic peptide corresponding to a sequence at the C-terminal of human IQGAP1 (GeneID 8826), conjugated to KLH. The corresponding sequence is highly conserved (88% identity) in mouse IQGAP1. The antibody is affinity-purified using the immunizing peptide immobilized on agarose.

Anti-IQGAP1 (C-terminal region) specifically recognizes human 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.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 upregulated 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.

Antibody concentration: ~1.5 mg/mL

Precautions and Disclaimer

For R&D use only. Not for drug, household, or other uses. Please consult the Safety Data Sheet for information regarding hazards and safe handling practices.

Storage/Stability

Store at -20°C . For continuous use, store at $2-8^{\circ}\text{C}$ for up to one month. For extended storage, freeze in working aliquots at -20°C . 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 antibody concentration of 2-4 $\mu\text{g}/\text{mL}$ is recommended using MCF7 cell extracts.

Immunoprecipitation: a working antibody amount of 10-20 μg is recommended using HeLa cell lysates.

Immunohistochemistry: a working antibody concentration of 20-40 $\mu\text{g}/\text{mL}$ is recommended using formalin-fixed and paraffin embedded human colon.

Note: In order to obtain best results in various techniques and preparations, it is recommended to determine optimal working dilutions by titration..

References

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VS,ER,TD,KAA,PHC,MAM 06/19-1