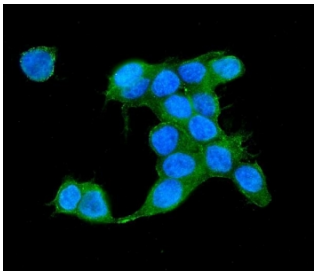
IQGAP2 Antibody / IQ Motif Containing GTPase Activating Protein 2 Polyclonal Antibody (RQ4140)

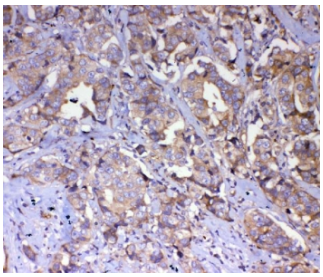
Catalog No.	Formulation	Size
RQ4140	0.5mg/ml if reconstituted with 0.2ml sterile DI water	100 ug

Bulk quote request

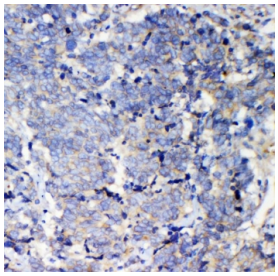
Species Reactivity	Human, Mouse
Format	Antigen affinity purified
Host	Rabbit
Clonality	Polyclonal (rabbit origin)
Isotype	Rabbit IgG
Purity	Antigen affinity purified
Buffer	Lyophilized from 1X PBS with 2% Trehalose and 0.025% sodium azide
UniProt	Q13576
Applications	Western Blot: 0.5-1ug/ml Immunohistochemistry (FFPE): 1-2ug/ml Immunofluorescence (FFPE): 2-4ug/ml Flow cytometry: 1-3ug/million cells Direct ELISA: 0.1-0.5ug/ml
Limitations	This IQGAP2 antibody is available for research use only.



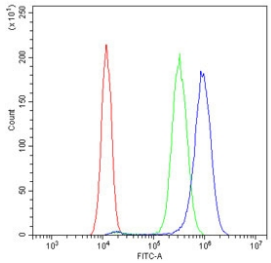
IQGAP2 Antibody IF Staining of Human MCF7 Cells. Immunofluorescence analysis of FFPE human MCF7 cells using IQ Motif Containing GTPase Activating Protein 2 Polyclonal Antibody. Green fluorescence indicates IQGAP2 immunoreactivity distributed predominantly throughout the cytoplasm and peripheral cellular regions, while DAPI counterstaining identifies nuclei in blue. Heat-induced epitope retrieval was performed by steaming samples in pH 6 citrate buffer for 20 minutes.



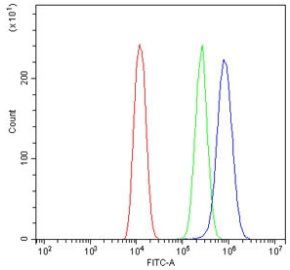
IQGAP2 Antibody IHC Staining of Human Breast Cancer Tissue. Immunohistochemical analysis of FFPE human breast cancer tissue using IQ Motif Containing GTPase Activating Protein 2 Polyclonal Antibody. Brown DAB staining is visible in numerous tumor cells, with predominantly cytoplasmic and peripheral cellular immunoreactivity against the blue hematoxylin counterstain. Heat-induced epitope retrieval was performed by boiling sections in pH 8 EDTA buffer for 20 minutes, followed by cooling before staining.



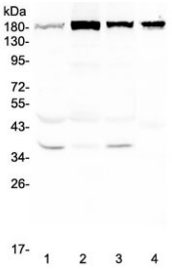
IQGAP2 Antibody IHC Staining of Human Lung Cancer Tissue. Immunohistochemical analysis of FFPE human lung cancer tissue using IQ Motif Containing GTPase Activating Protein 2 Polyclonal Antibody. Brown DAB staining is distributed among tumor cells, with variable cytoplasmic immunoreactivity and areas of more prominent staining within the tissue section. Heat-induced epitope retrieval was performed by boiling sections in pH 8 EDTA buffer for 20 minutes, followed by cooling before staining.



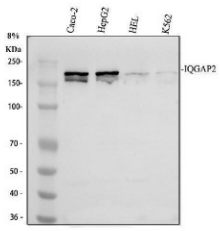
IQGAP2 Antibody Flow Cytometry Analysis of Human SiHa Cells. Flow cytometric analysis of human SiHa cells using IQ Motif Containing GTPase Activating Protein 2 Polyclonal Antibody at 1 ug per million cells following blocking with goat serum. The red histogram represents cells alone, the green histogram represents the isotype control, and the blue histogram represents antibody-stained cells. The rightward shift of the blue population relative to both controls demonstrates detectable IQGAP2-associated fluorescence.



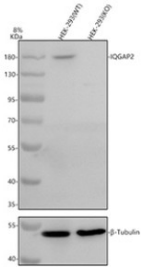
IQGAP2 Antibody Flow Cytometry Analysis of Human U-2 OS Cells. Flow cytometric analysis of human U-2 OS cells using IQ Motif Containing GTPase Activating Protein 2 Polyclonal Antibody at 1 ug per million cells following blocking with goat serum. The red histogram represents cells alone, the green histogram represents the isotype control, and the blue histogram represents antibody-stained cells. The blue population exhibits increased fluorescence relative to the controls, indicating detectable IQGAP2 immunoreactivity.



IQGAP2 Antibody Western Blot Analysis of HeLa, Placenta, HepG2 and Mouse Stomach Lysates. Western blot analysis using IQ Motif Containing GTPase Activating Protein 2 Polyclonal Antibody at 0.5 ug/ml. Lane 1: human HeLa cells; lane 2: human placenta; lane 3: human HepG2 cells; lane 4: mouse stomach. A prominent immunoreactive band is detected near 181 kDa in all four samples, consistent with the predicted molecular weight of IQGAP2.



IQGAP2 Antibody Western Blot Analysis of Caco-2, HepG2, HEL and K562 Cells. Western blot analysis using IQ Motif Containing GTPase Activating Protein 2 Polyclonal Antibody at 0.5 ug/ml. Lane 1: human Caco-2 cells; lane 2: human HepG2 cells; lane 3: human HEL cells; lane 4: human K562 cells. Each lane contains 30 ug of total protein under reducing conditions. Immunoreactive bands are detected at approximately 181 kDa, corresponding to the expected molecular weight of IQGAP2.



IQGAP2 Antibody Western Blot Validation in HEK293 Wild-Type and IQGAP2 Knockout Cells. Western blot analysis of human HEK293 wild-type (WT, lane 1) and IQGAP2 knockout (KO, lane 2) whole-cell lysates using IQ Motif Containing GTPase Activating Protein 2 Polyclonal Antibody at 0.5 ug/ml. Each lane contains 30 ug of total protein under reducing conditions. An immunoreactive band near 181 kDa is detected in the WT lysate and is markedly reduced in the KO sample, supporting antibody specificity for IQGAP2. Alpha-Tubulin serves as the loading control.

Description

IQGAP2 Antibody / IQ Motif Containing GTPase Activating Protein 2 Polyclonal Antibody targets IQGAP2, a large multidomain scaffolding protein involved in cytoskeletal organization, cell adhesion, and intracellular signal transduction. IQGAP2 belongs to the IQGAP protein family, which also includes IQGAP1 and IQGAP3. Despite containing a GTPase-activating protein-related domain, IQGAP2 primarily functions as a molecular scaffold rather than a conventional catalytic GTPase-activating protein. It coordinates interactions among signaling molecules, cytoskeletal components, and regulatory proteins to influence cellular morphology, polarity, and responses to extracellular signals.

IQGAP2 contains several conserved structural regions, including a calponin homology domain, a WW domain, multiple IQ motifs, and a RasGAP-related domain. These domains support interactions with filamentous actin, calmodulin, and the Rho family GTPases Cdc42 and Rac1. Through these associations, IQGAP2 participates in actin cytoskeleton remodeling, cell-cell adhesion, and the organization of signaling complexes. Its interactions with activated small GTPases help regulate cytoskeletal dynamics without directly stimulating their GTP hydrolysis. IQGAP2 also contributes to the maintenance of epithelial junctions and cellular architecture.

IQGAP2 has attracted considerable attention for its tumor-suppressive functions, particularly in hepatocellular carcinoma. Reduced IQGAP2 expression has been associated with altered cell adhesion, increased proliferation, and dysregulation of signaling pathways involved in tumor progression. Experimental studies indicate that IQGAP2 can influence beta-catenin signaling and interact functionally with IQGAP1, which frequently exhibits opposing effects on cellular growth. Changes in IQGAP2 abundance may also affect MAPK signaling, cellular migration, and epithelial organization. However, its biological activities remain dependent on cellular context and interactions with other signaling proteins.

Beyond cancer biology, IQGAP2 participates in processes involving cytoskeletal regulation, cellular communication, and innate immune signaling. Its ability to coordinate multiple protein interactions makes it an important component of signaling networks connecting membrane-associated events with intracellular responses. Research using IQGAP2 Antibody can help characterize the distribution and regulation of this scaffolding protein, particularly its contributions to cytoskeletal organization, cell adhesion, and tumor-associated signaling.

Explore our selection of Cancer Antibodies for investigating tumor suppressor proteins, cytoskeletal regulation, and signaling pathways associated with cancer progression.

Application Notes

Optimal dilution of the IQGAP2 Antibody / IQ Motif Containing GTPase Activating Protein 2 Polyclonal Antibody should be determined by the researcher.

Immunogen

A recombinant human partial protein corresponding to amino acids A1329-Q1544 was used as the immunogen for the IQGAP2 antibody.

Storage

After reconstitution, the IQGAP2 antibody can be stored for up to one month at 4oC. For long-term, aliquot and store at

-20oC. Avoid repeated freezing and thawing.

Alternate Names

IQ motif containing GTPase activating protein 2 antibody, IQ motif containing GAP 2 antibody, Ras GTPase-activating-like protein IQGAP2 antibody, IQGAP family member 2 antibody, IQGAP-2 antibody, IQGAP2 protein antibody, IQGAP2 scaffold protein antibody, IQGAP2 cytoskeletal protein antibody, IQGAP2 signaling protein antibody, IQGAP2 tumor suppressor antibody

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