Technical Data Sheet

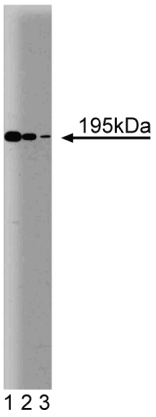
Purified Mouse Anti-IQGAP1

Product Information

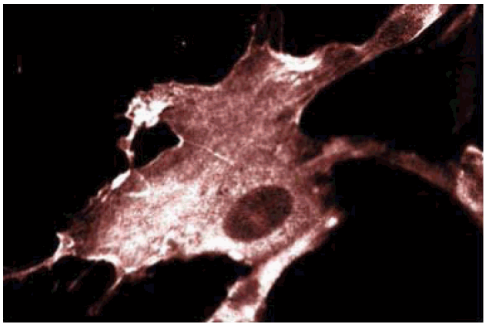
Material Number:	**610611**
Size:	50 µg
Concentration:	250 µg/ml
Clone:	24/IQGAP1
Immunogen:	Human IQGAP1 aa. 1348-1490
Isotype:	Mouse IgG1
Reactivity:	QC Testing: Human Tested in Development: Mouse, Rat, Dog
Target MW:	195 kDa
Storage Buffer:	Aqueous buffered solution containing BSA, glycerol, and ≤0.09% sodium azide.

Description

GTPases (Ras, Rho, cdc42Hs, and rac) modulate various cellular functions such as cytoskeletal architecture, growth, motility, and gene expression. The activity of the GTP-binding proteins is regulated by factors that accelerate GTP-binding (GAPs) and proteins that enhance the rate of GTP hydrolysis (GTPases). IQGAP1 is Ras-GAP related protein that contains a WW domain that binds poly-proline regions, a calponin-homology domain (CHD), an IQ domain of unconventional myosins, and a C-terminal GAP-related domain (GRD). IQGAP1 co-immunoprecipitates with cdc42 and calmodulin, and colocalizes with cdc42Hs at the leading edges of the plasma membrane and at the cell-cell junctions. IQGAP1 may interact with both cadherins and catenins leading to dissociation of these proteins from sites of cell adhesion. Thus, IQGAP1 may be a Rac1 and Cdc42 effector that negatively regulates cadherin-mediated cell junctions.



Western blot analysis of IQGAP1 on a human endothelial cell lysate. *Lane 1: 1:5000, lane 2: 1:10,000, lane 3: 1:20,000 dilution of the mouse anti-IQGAP1 antibody.*



Immunofluorescence staining of WI-38 cells (Human lung fibroblasts; ATCC CCL-75).

Preparation and Storage

The monoclonal antibody was purified from tissue culture supernatant or ascites by affinity chromatography.

Store undiluted at -20°C.

Application Notes

Application

Western blot	Routinely Tested
Immunofluorescence	Tested During Development
Immunohistochemistry	Tested During Development
Immunoprecipitation	Tested During Development

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Western blot: Please refer to http://www.bdbiosciences.com/pharmingen/protocols/Western_Blotting.shtml

Suggested Companion Products

Catalog Number	Name	Size	Clone
611450	Human Endothelial Cell Lysate	500 µg	(none)
554002	HRP Goat Anti-Mouse Ig	1.0 ml	(none)
554001	FITC Goat Anti-Mouse Ig	0.5 mg	Polyclonal

Product Notices

1. Since applications vary, each investigator should titrate the reagent to obtain optimal results.
2. Source of all serum proteins is from USDA inspected abattoirs located in the United States.
3. Caution: Sodium azide yields highly toxic hydrazoic acid under acidic conditions. Dilute azide compounds in running water before discarding to avoid accumulation of potentially explosive deposits in plumbing.
4. Please refer to www.bdbiosciences.com/pharmingen/protocols for technical protocols.

References

Hart MJ, Callow MG, Souza B, Polakis P. IQGAP1, a calmodulin-binding protein with a rasGAP-related domain, is a potential effector for cdc42Hs. *EMBO J.* 1996; 15(12):2997-3005. (Biology)

Kuroda S, Fukata M, Kobayashi K, et al. Identification of IQGAP as a putative target for the small GTPases, Cdc42 and Rac1. *J Biol Chem.* 1996; 271(38):23363-23367. (Biology)

Li S, Wang Q, Chakladar A, Bronson RT, Bernards A. Gastric hyperplasia in mice lacking the putative Cdc42 effector IQGAP1. *Mol Cell Biol.* 2000; 20(2):697-701. (Biology: Western blot)

Mbele GO, Deloulme JC, Gentil BJ, et al. The zinc- and calcium-binding S100B interacts and co-localizes with IQGAP1 during dynamic rearrangement of cell membranes. *J Biol Chem.* 2002; 277(51):49998-50007. (Biology: Western blot)

Ruiz-Velasco R, Lanning CC, Williams CL. The activation of Rac1 by M3 muscarinic acetylcholine receptors involves the translocation of Rac1 and IQGAP1 to cell junctions and changes in the composition of protein complexes containing Rac1, IQGAP1, and actin. *J Biol Chem.* 2002; 277(36):33081-33091. (Biology: Immunofluorescence, Immunoprecipitation, Western blot)