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Anti-ARHGEF5 Antibody

Catalog # AP51843

Product Information

Application	WB, IHC, IF/IC
Primary Accession	Q12774
Reactivity	Human, Mouse, Rat
Host	Rabbit
Clonality	Polyclonal
Calculated MW	176799

Additional Information

Gene ID	7984
Other Names	TIM; Rho guanine nucleotide exchange factor 5; Ephexin-3; Guanine nucleotide regulatory protein TIM; Oncogene TIM; Transforming immortalized mammary oncogene; p60 TIM
Target/Specificity	KLH-conjugated synthetic peptide encompassing a sequence within the center region of human ARHGEF5. The exact sequence is proprietary.
Dilution	WB~~WB (1/500 - 1/1000) IHC~~1:100~500 IF/IC~~N/A
Format	Liquid in 0.42% Potassium phosphate, 0.87% Sodium chloride, pH 7.3, 30% glycerol, and 0.01% sodium azide.
Storage	Store at -20 °C.Stable for 12 months from date of receipt

Protein Information

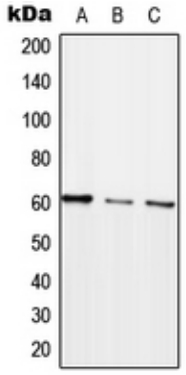
Name	ARHGEF5
Synonyms	TIM
Function	Guanine nucleotide exchange factor which activates Rho GTPases (PubMed:15601624). Strongly activates RHOA (PubMed:15601624). Also strongly activates RHOB, weakly activates RHOC and RHOG and shows no effect on RHOD, RHOV, RHOQ or RAC1 (By similarity). Involved in regulation of cell shape and actin cytoskeletal organization (PubMed:15601624). Plays a role in actin organization by generating a loss of actin stress fibers and the formation of membrane ruffles and filopodia (PubMed:14662653). Required for SRC-induced podosome formation (By similarity). Involved in positive regulation of immature dendritic cell migration (By similarity).
Cellular Location	Cytoplasm. Nucleus Cell projection, podosome {ECO:0000250|UniProtKB:E9Q7D5}

Tissue Location	Ubiquitously expressed with highest levels in placenta. High levels are also found in colon, kidney, trachea, prostate, liver, pancreas, pituitary gland, thyroid gland and mammary gland. In fetal tissues, expressed at high levels in kidney, lung and liver (PubMed:15601624). Expressed at low levels in lung and heart (PubMed:14662653).

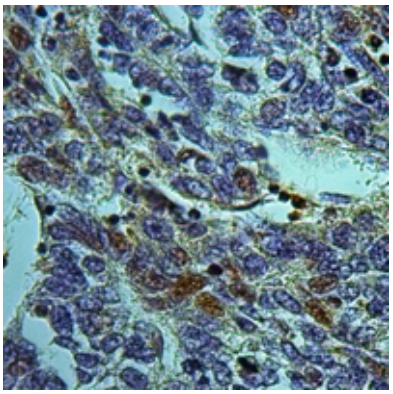
References

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Hillier L.W.,et al.Nature 424:157-164(2003).
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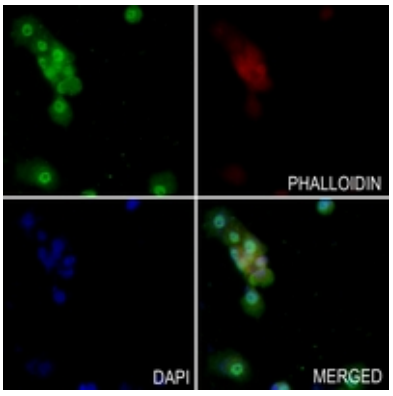
Images



Western blot analysis of ARHGEF5 expression in HEK293T (A), SP2/0 (B), H9C2 (C) whole cell lysates. (Predicted band size: 176 kD; Observed band size: 60 kD)



Immunohistochemical analysis of ARHGEF5 staining in human liver cancer formalin fixed paraffin embedded tissue section. The section was pre-treated using heat mediated antigen retrieval with sodium citrate buffer (pH 6.0). The section was then incubated with the antibody at room temperature and detected using an HRP conjugated compact polymer system. DAB was used as the chromogen. The section was then counterstained with haematoxylin and mounted with DPX.



Immunofluorescent analysis of ARHGEF5 staining in Hela cells. Formalin-fixed cells were permeabilized with 0.1% Triton X-100 in TBS for 5-10 minutes and blocked with 3% BSA-PBS for 30 minutes at room temperature. Cells were probed with the primary antibody in 3% BSA-PBS and incubated overnight at 4 °C in a hidified chamber. Cells were washed with PBST and incubated with a AF488-conjugated secondary antibody (green) in PBS at room temperature in the dark. Phalloidin - AF594 was used to stain Actin filaments (red). DAPI was used to stain the cell nuclei (blue).

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.