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Cdc42 Polyclonal Antibody

Catalog Number PA1-092

Product data sheet

Details	
Size	100 µg
Host/Isotope	Rabbit / IgG
Class	Polyclonal
Type	Antibody
Immunogen	C-Terminal truncated human recombinant protein
Conjugate	Unconjugated
Form	Liquid
Concentration	1 mg/mL
Purification	Protein A
Storage buffer	PBS with 1mg/mL BSA, 30% glycerol
Contains	0.05% sodium azide
Storage Conditions	-20° C, Avoid Freeze/Thaw Cycles

Species Reactivity	
Species reactivity	Human, Mouse, Non-human primate, Rat
Published species	Human, Mouse, Not Applicable

Tested Applications	Dilution *
Immunohistochemistry (Paraffin) (IHC (P))	1:20
Western Blot (WB)	1:1,000
Immunocytochemistry (ICC/IF)	1:100

Published Applications	
Western Blot (WB)	See 1 publications below
Immunohistochemistry (IHC)	See 1 publications below
Miscellaneous PubMed (Misc)	See 1 publications below
Immunocytochemistry (ICC/IF)	See 1 publications below

* Suggested working dilutions are given as a guide only. It is recommended that the user titrate the product for use in their own experiment using appropriate negative and positive controls.

Background/Target Information

Rac1 is a GTPase which belongs to the RAS superfamily of small GTP-binding proteins. Members of this superfamily appear to regulate a diverse array of cellular events, including the control of cell growth, cytoskeletal reorganization, and the activation of protein kinases. Two transcript variants encoding different isoforms have been found for the Rac1 gene.

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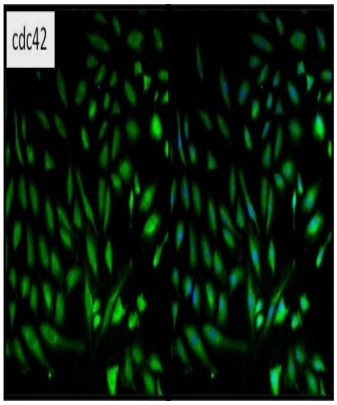
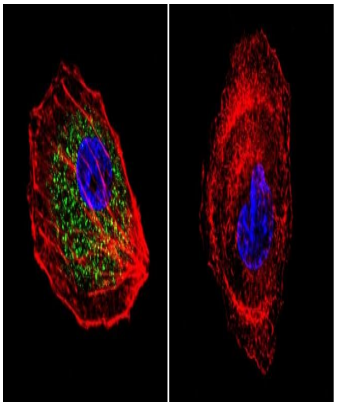
Product Images For Cdc42 Polyclonal Antibody



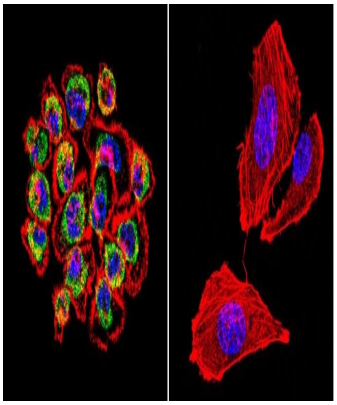
Cdc42 Antibody (PA1-092) in ICC/IF

Immunofluorescent analysis of cdc42 (green) in HeLa cells. Formalin fixed cells were permeabilized with 0.1% Triton X-100 in TBS for 10 minutes at room temperature and blocked with 5% normal goat serum (Product # 31873) for 15 minutes at room temperature. Cells were probed with a cdc42 polyclonal antibody (Product # PA1-092) at a dilution of 1:100 for at least 1 hour at room temperature, washed with PBS, and incubated with DyLight 488 goat anti-rabbit IgG secondary antibody (Product # 35552) at a dilution of 1:400 for 30 minutes at room temperature. Nuclei (blue) were stained with Hoechst 33342 dye (Product # 62249). Images were taken on a Thermo Scientific ArrayScan at 20X magnification.



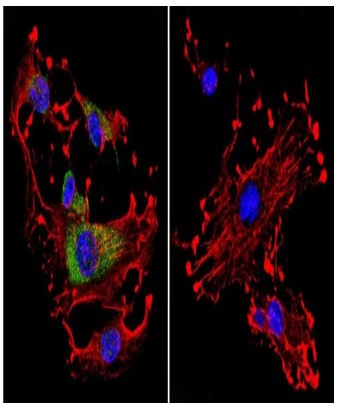
Cdc42 Antibody (PA1-092) in ICC/IF

Immunofluorescent analysis of cdc42 in HepG2 Cells. Cells were grown on chamber slides and fixed with formaldehyde prior to staining. Cells were probed without (control) or with a cdc42 polyclonal antibody (Product # PA1-092) at a dilution of 1:200 overnight at 4 C, washed with PBS and incubated with a DyLight-488 conjugated secondary antibody (Product # 35552). cdc42 staining (green), F-Actin staining with Phalloidin (red) and nuclei with DAPI (blue) is shown. Images were taken at 60X magnification.



Cdc42 Antibody (PA1-092) in ICC/IF

Immunofluorescent analysis of cdc42 in A431 Cells. Cells were grown on chamber slides and fixed with formaldehyde prior to staining. Cells were probed without (control) or with a cdc42 polyclonal antibody (Product # PA1-092) at a dilution of 1:20 overnight at 4 C, washed with PBS and incubated with a DyLight-488 conjugated secondary antibody (Product # 35552). cdc42 staining (green), F-Actin staining with Phalloidin (red) and nuclei with DAPI (blue) is shown. Images were taken at 60X magnification.



Cdc42 Antibody (PA1-092) in ICC/IF

Immunofluorescent analysis of cdc42 in C6 Cells. Cells were grown on chamber slides and fixed with formaldehyde prior to staining. Cells were probed without (control) or with a cdc42 polyclonal antibody (Product # PA1-092) at a dilution of 1:20 overnight at 4 C, washed with PBS and incubated with a DyLight-488 conjugated secondary antibody (Product # 35552). cdc42 staining (green), F-Actin staining with Phalloidin (red) and nuclei with DAPI (blue) is shown. Images were taken at 60X magnification.

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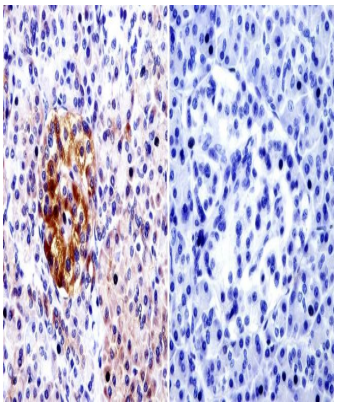
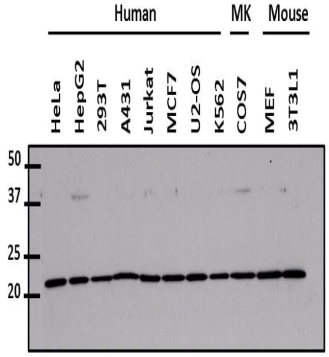


Cdc42 Antibody (PA1-092) in IHC (P)

Immunohistochemistry was performed on normal biopsies of deparaffinized human pancreas tissue. To expose target proteins, heat induced antigen retrieval was performed using 10mM sodium citrate (pH6.0) buffer, microwaved for 8-15 minutes. Following antigen retrieval tissues were blocked in 3% BSA-PBS for 30 minutes at room temperature. Tissues were then probed at a dilution of 1:20 with a Rabbit Polyclonal Antibody recognizing cdc42 (Product # PA1-092) or without primary antibody (negative control) overnight at 4°C in a humidified chamber. Tissues were washed extensively with PBST and endogenous peroxidase activity was quenched with a peroxidase suppressor. Detection was performed using a biotin-conjugated secondary antibody and SA-HRP, followed by colorimetric detection using DAB. Tissues were counterstained with hematoxylin and prepped for mounting.



Cdc42 Antibody (PA1-092) in WB

Western blot analysis of cdc42 was performed by loading 50 µg of various whole cell lysate onto a 4-20% Tris-HCl polyacrylamide gel. Proteins were transferred to a PVDF membrane and blocked with 5% Milk/TBST for at least 1 hour. Membranes were probed with a rabbit polyclonal antibody recognizing cdc42 (Product # PA1-092) at a dilution of 1:1000 overnight at 4°C on a rocking platform. Membranes were then washed in TBS-0.1%Tween 20 and probed with a goat anti-rabbit-HRP secondary antibody (Product # 31460) at a dilution of 1:10000 for at least one hour. Membranes were washed and chemiluminescent detection was performed using Super Signal West Pico (Product # 34080).

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PubMed References For Cdc42 Polyclonal Antibody

1 Western Blot References

Species / Dilution	Summary
Human / Not Cited	PA1-092X was used in western blot to determine the enzymatic activity of NarE of Neisseria gonorrhoeae FEMS microbiology letters (2016; 363:) **"The NarE protein of Neisseria gonorrhoeae catalyzes ADP-ribosylation of several ADP-ribose acceptors despite an N-terminal deletion."** Author(s):Rodas PI,Álamos-Musre AS,Álvarez FP,Escobar A,Tapia CV,Osorio E,Otero C,Calderón IL,Fuentes JA,Gil F, Paredes-Sabja D,Christodoulides M PubMed Article URL:http://dx.doi.org/10.1093/femsle/fnw181

1 Immunohistochemistry References

Species / Dilution	Summary
Mouse / 1:50	Molecular biology of the cell (2019; 30: 324) **"Cdc42 negatively regulates endocytosis during apical membrane maintenance in live animals."** Author(s):Shitara A,Malec L,Ebrahim S,Chen D,Bleck C,Hoffman MP,Weigert R PubMed Article URL:http://dx.doi.org/10.1091/mbc.E18-10-0615

1 Miscellaneous PubMed References

Species / Dilution	Summary
Human / 1:100	PA1-092 was used in immunohistochemistry - paraffin section to determine the apical polarity determinants in five patients with microvillus inclusion disease Biology of the cell (2016; 108: 19) **"The localisation of the apical Par/Cdc42 polarity module is specifically affected in microvillus inclusion disease."** Author(s):Michaux G,Massey-Harroche D,Nicolle O,Rabant M,Brousse N,Goulet O,Le Bivic A,Ruemmele FM PubMed Article URL:http://dx.doi.org/10.1111/boc.201500034

1 Immunocytochemistry References

Species / Dilution	Summary
Mouse / Not Cited	PA1-092X was used in immunocytochemistry and immunohistochemistry to examine the role of 14-3-3 proteins during brain development The Journal of neuroscience : the official journal of the Society for Neuroscience (2014; 34: 12168) **"14-3-3 and regulate neurogenesis and differentiation of neuronal progenitor cells in the developing brain."** Author(s):Toyo-oka K,Wachi T,Hunt RF,Baraban SC,Taya S,Ramshaw H,Kaibuchi K,Schwarz QP,Lopez AF,Wynshaw-Boris A PubMed Article URL:http://dx.doi.org/10.1523/JNEUROSCI.2513-13.2014

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