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CDC42BPA / MRCK Antibody (N-Terminus)
Goat Polyclonal Antibody
Catalog # ALS13719

Specification

CDC42BPA / MRCK Antibody (N-Terminus) - Product Information

Application	**IHC**
Primary Accession	Q5VT25
Reactivity	**Human, Mouse, Rat, Rabbit, Monkey, Horse, Bovine**
Host	**Goat**
Clonality	**Polyclonal**
Calculated MW	**197kDa KDa**

CDC42BPA / MRCK Antibody (N-Terminus) - Additional Information

Gene ID 8476

Other Names
Serine/threonine-protein kinase MRCK alpha, 2.7.11.1, CDC42-binding protein kinase alpha, DMPK-like alpha, Myotonic dystrophy kinase-related CDC42-binding kinase alpha, MRCK alpha, Myotonic dystrophy protein kinase-like alpha, CDC42BPA {ECO:0000312|EMBL:CAH71336.1}, KIAA0451

Target/Specificity
Human CDC42BPA / MRCK. This antibody is expected to recognise both reported Human isoforms (NP_055641.3 and NP_003598.2).

Reconstitution & Storage
Store at -20°C. Minimize freezing and thawing.

Precautions
CDC42BPA / MRCK Antibody (N-Terminus) is for research use only and not for use in diagnostic or therapeutic procedures.

CDC42BPA / MRCK Antibody (N-Terminus) - Protein Information

Name CDC42BPA {ECO:0000312|EMBL:CAH71336.1}

Synonyms KIAA0451

Function
Serine/threonine-protein kinase which is an important downstream effector of CDC42 and plays a role in the regulation of cytoskeleton reorganization and cell migration (PubMed:15723050, PubMed:9418861, PubMed:9092543). Regulates actin cytoskeletal reorganization via phosphorylation of PPP1R12C and MYL9/MLC2 (PubMed:<a

href="http://www.uniprot.org/citations/21457715" target="_blank">21457715). In concert with MYO18A and LURAP1, is involved in modulating lamellar actomyosin retrograde flow that is crucial to cell protrusion and migration (PubMed:18854160). Phosphorylates: PPP1R12A, LIMK1 and LIMK2 (PubMed:11340065, PubMed:11399775). May play a role in TFRC-mediated iron uptake (PubMed:20188707). In concert with FAM89B/LRAP25 mediates the targeting of LIMK1 to the lamellipodium resulting in its activation and subsequent phosphorylation of CFL1 which is important for lamellipodial F-actin regulation (By similarity). Triggers the formation of an extrusion apical actin ring required for epithelial extrusion of apoptotic cells (PubMed:29162624).

Cellular Location
Cytoplasm {ECO:0000250|UniProtKB:O54874}. Cell projection, lamellipodium {ECO:0000250|UniProtKB:Q3UU96}. Note=Displays a dispersed punctate distribution and concentrates along the cell periphery, especially at the leading edge and cell-cell junction. This concentration is PH-domain dependent. Localizes in the lamellipodium in a FAM89B/LRAP25-dependent manner. {ECO:0000250|UniProtKB:O54874, ECO:0000250|UniProtKB:Q3UU96}

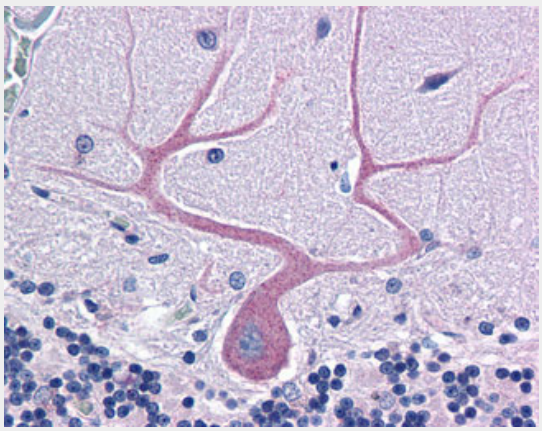
Tissue Location
Abundant in the heart, brain, skeletal muscle, kidney, and pancreas, with little or no expression in the lung and liver.

CDC42BPA / MRCK Antibody (N-Terminus) - Protocols

Provided below are standard protocols that you may find useful for product applications.

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

CDC42BPA / MRCK Antibody (N-Terminus) - Images



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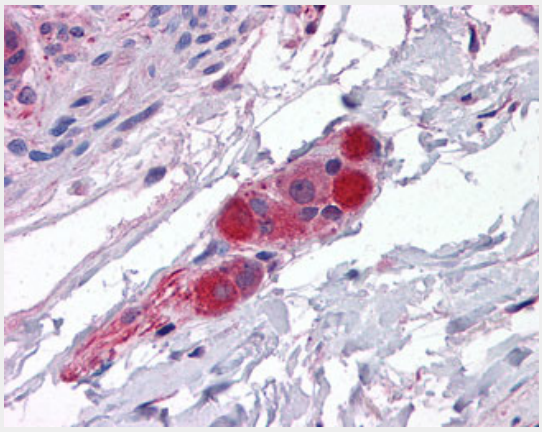
Anti-CDC42BPA / MRCK antibody IHC of human brain, cerebellum.



Anti-CDC42BPA / MRCK antibody IHC of human small intestine, submucosal plexus.

CDC42BPA / MRCK Antibody (N-Terminus) - Background

Serine/threonine-protein kinase which is an important downstream effector of CDC42 and plays a role in the regulation of cytoskeleton reorganization and cell migration. Regulates actin cytoskeletal reorganization via phosphorylation of PPP1R12C and MYL9/MLC2. In concert with MYO18A and LURAP1, is involved in modulating lamellar actomyosin retrograde flow that is crucial to cell protrusion and migration. Phosphorylates: PPP1R12A, LIMK1 and LIMK2. May play a role in TFRC-mediated iron uptake.

CDC42BPA / MRCK Antibody (N-Terminus) - References

Wilkinson S.,et al.Nat. Cell Biol. 7:255-261(2005).
Totoki Y.,et al.Submitted (MAR-2005) to the EMBL/GenBank/DDBJ databases.
Bechtel S.,et al.BMC Genomics 8:399-399(2007).
Gregory S.G.,et al.Nature 441:315-321(2006).
Zhao Y.,et al.J. Biol. Chem. 272:10013-10020(1997).