

MRCK α Polyclonal Antibody

Catalog # AP71010

Product Information

Application	WB
Primary Accession	Q5VT25
Reactivity	Human, Mouse, Rat
Host	Rabbit
Clonality	Polyclonal
Calculated MW	197307

Additional Information

Gene ID	8476
Other Names	CDC42BPA; KIAA0451; Serine/threonine-protein kinase MRCK alpha; CDC42-binding protein kinase alpha; DMPK-like alpha; Myotonic dystrophy kinase-related CDC42-binding kinase alpha; MRCK alpha; Myotonic dystrophy protein kinase-like alpha
Dilution	WB~~Western Blot: 1/500 - 1/2000. ELISA: 1/40000. Not yet tested in other applications.
Format	Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.09% (W/V) sodium azide.
Storage Conditions	-20°C

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: 9092543 , PubMed: 9418861). Regulates actin cytoskeletal reorganization via phosphorylation of PPP1R12C and MYL9/MLC2 (PubMed: 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}

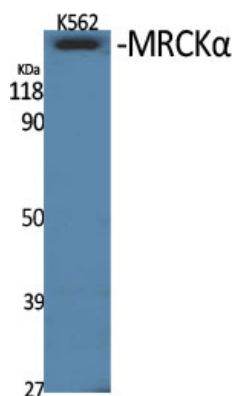
Tissue Location

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

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 (PubMed:[15723050](#), PubMed:[9418861](#), PubMed:[9092543](#)). Regulates actin cytoskeletal reorganization via phosphorylation of PPP1R12C and MYL9/MLC2 (PubMed:[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 TFRF-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).

Images



Western Blot analysis of various cells using MRCKα Polyclonal Antibody

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