

MRCKβ Polyclonal Antibody

Catalog # AP71011

Product Information

ApplicationWB, IHC-PPrimary AccessionQ9Y5S2

Reactivity Human, Mouse, Rat

HostRabbitClonalityPolyclonalCalculated MW194315

Additional Information

Gene ID 9578

Other Names CDC42BPB; KIAA1124; Serine/threonine-protein kinase MRCK beta;

CDC42-binding protein kinase beta; CDC42BP-beta; DMPK-like beta; Myotonic dystrophy kinase-related CDC42-binding kinase beta; MRCK beta; Myotonic

dystrophy protein kinase-like b

Dilution WB~~Western Blot: 1/500 - 1/2000. Immunohistochemistry: 1/100 - 1/300.

ELISA: 1/40000. Not yet tested in other applications. IHC-P~~N/A

Format Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.09% (W/V) sodium

azide.

Storage Conditions -20°C

Protein Information

Name CDC42BPB {ECO:0000312 | EMBL:AAD37506.1}

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. Regulates actin cytoskeletal reorganization via phosphorylation of PPP1R12C and MYL9/MLC2 (PubMed:21457715, PubMed:21949762). 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 (PubMed:21457715). 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).

Cellular Location Cytoplasm. Cell membrane; Peripheral membrane protein; Cytoplasmic side.

Cell junction. 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 (By similarity). Detected at the leading edge of migrating cells. Localization at the leading edge of migrating cells requires interaction with catalytically active CDC42 (PubMed:21240187) Localizes in the lamellipodium in a FAM89B/LRAP25-dependent manner (By similarity). {ECO:0000250 | UniProtKB:O54874, ECO:0000250 | UniProtKB:Q3UU96, ECO:0000269 | PubMed:21240187}

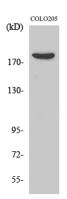
Tissue Location

Expressed in all tissues examined, with high levels in heart, brain, placenta and lung.

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 (PubMed:21457715, PubMed:21949762). 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 (PubMed:21457715). 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 MRCKβ Polyclonal Antibody

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