

**MRCK $\alpha$  Polyclonal Antibody**  
**Catalog # AP71010****Specification****MRCK $\alpha$  Polyclonal Antibody - Product Information**

Application	WB
Primary Accession	<a href="#">Q5VT25</a>
Reactivity	Human, Mouse, Rat
Host	Rabbit
Clonality	Polyclonal

**MRCK $\alpha$  Polyclonal Antibody - 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

**MRCK $\alpha$  Polyclonal Antibody - 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:<a href="http://www.uniprot.org/citations/15723050" target="\_blank">15723050</a>, PubMed:<a href="http://www.uniprot.org/citations/9092543" target="\_blank">9092543</a>, PubMed:<a href="http://www.uniprot.org/citations/9418861" target="\_blank">9418861</a>). Regulates actin cytoskeletal reorganization via phosphorylation of PPP1R12C and MYL9/MLC2 (PubMed:<a href="http://www.uniprot.org/citations/21457715" target="\_blank">21457715</a>). In concert with MYO18A and LURAP1, is involved in modulating lamellar actomyosin retrograde flow that is crucial to cell protrusion and migration (PubMed:<a href="http://www.uniprot.org/citations/18854160" target="\_blank">18854160</a>). Phosphorylates: PPP1R12A, LIMK1 and LIMK2 (PubMed:<a href="http://www.uniprot.org/citations/11340065" target="\_blank">11340065</a>, PubMed:<a href="http://www.uniprot.org/citations/11340065" target="\_blank">11340065</a>, PubMed:<a href="http://www.uniprot.org/citations/11340065" target="\_blank">11340065</a>).

<http://www.uniprot.org/citations/11399775> target="\_blank">11399775</a>). May play a role in TFRC-mediated iron uptake (PubMed:<a href="http://www.uniprot.org/citations/20188707" target="\_blank">20188707</a>). 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:<a href="http://www.uniprot.org/citations/29162624" target="\_blank">29162624</a>).

#### 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

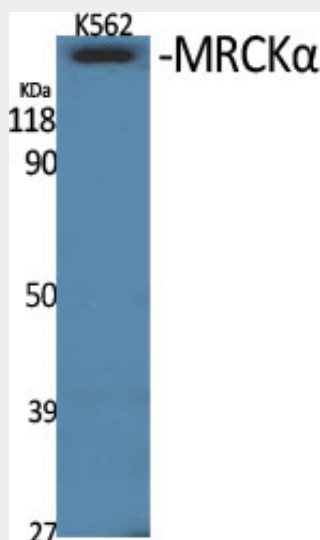
Abundant in the heart, brain, skeletal muscle, kidney, and pancreas, with little or no expression in the lung and liver.

### MRCK $\alpha$ Polyclonal Antibody - Protocols

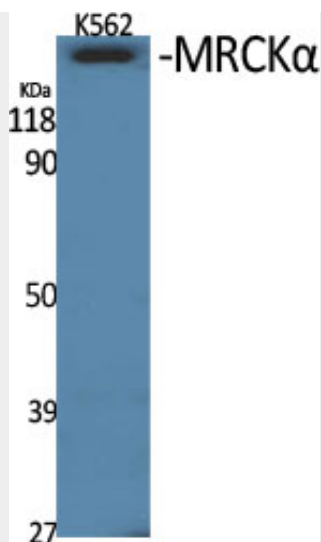
Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

### MRCK $\alpha$ Polyclonal Antibody - Images



Western Blot analysis of various cells using MRCK $\alpha$  Polyclonal Antibody



Western Blot analysis of various cells using MRCK $\alpha$  Polyclonal Antibody

#### **MRCK $\alpha$ Polyclonal Antibody - 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 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).