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MKL1 antibody - C-terminal region

Rabbit Polyclonal Antibody
Catalog # AI11238

Product Information

Application	WB
Primary Accession	Q8K4J6
Other Accession	NM_153049, NP_694629
Reactivity	Human, Mouse, Rat, Rabbit, Zebrafish, Pig, Dog, Horse, Bovine
Predicted	Human, Mouse, Rat, Rabbit, Pig, Chicken, Dog, Horse, Bovine
Host	Rabbit
Clonality	Polyclonal
Calculated MW	102546

Additional Information

Gene ID	223701
Alias Symbol	Mal, AMKL, Bsac, Mrtf-A, AI852829, AW743281, AW821984
Other Names	MKL/myocardin-like protein 1, Basic SAP coiled-coil transcription activator, Megakaryoblastic leukemia 1 protein homolog, Myocardin-related transcription factor A, MRTF-A, Mkl1, Bsac
Format	Liquid. Purified antibody supplied in 1x PBS buffer with 0.09% (w/v) sodium azide and 2% sucrose.
Reconstitution & Storage	Add 100 ul of distilled water. Final anti-MKL1 antibody concentration is 1 mg/ml in PBS buffer with 2% sucrose. For longer periods of storage, store at 20°C. Avoid repeat freeze-thaw cycles.
Precautions	MKL1 antibody - C-terminal region is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	Mrtfa
Function	Transcription coactivator that associates with the serum response factor (SRF) transcription factor to control expression of genes regulating the cytoskeleton during development, morphogenesis and cell migration (PubMed:12019265, PubMed:12732141, PubMed:17588931, PubMed:19350017, PubMed:24732378). The SRF-MRTFA complex activity responds to Rho GTPase-induced changes in cellular globular actin (G- actin) concentration, thereby coupling cytoskeletal gene expression to cytoskeletal dynamics (PubMed:24732378). MRTFA binds G-actin via its RPEL repeats, regulating activity of the MRTFA-SRF complex (PubMed:12732141,

PubMed:17588931). Activity is also regulated by filamentous actin (F-actin) in the nucleus (PubMed:23558171, PubMed:25759381).

Cellular Location

Cytoplasm. Nucleus. Note=Subcellular location is tightly regulated by actin both in cytoplasm and nucleus: high levels of G- actin in the nucleus observed during serum deprivation lead to low levels of nuclear MRTFA, while reduced levels of nuclear G-actin result in accumulation of MRTFA in the nucleus (PubMed:17588931, PubMed:21673315). G-actin-binding in the cytoplasm inhibits nuclear import by masking the nuclear localization signal (NLS) (PubMed:17588931, PubMed:20818336, PubMed:21673315). In contrast, binding to nuclear globular actin (G-actin) promotes nuclear export to the cytoplasm (PubMed:17588931). Nuclear localization is regulated by MICAL2, which mediates depolymerization of nuclear actin, which decreases nuclear G-actin pool, thereby promoting retention of MRTFA in the nucleus and subsequent formation of an active complex with SRF (By similarity). Nuclear import is mediated by importins KPNA4 and KPNB1 (PubMed:20818336). {ECO:0000250|UniProtKB:Q969V6, ECO:0000269|PubMed:17588931, ECO:0000269|PubMed:20818336, ECO:0000269|PubMed:21673315}

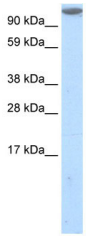
Tissue Location

Expressed in heart, brain, spleen, lung, liver, muscle, kidney and testis.

References

Sasazuki,T., et al., (2002) J. Biol. Chem. 277 (32), 28853-28860Reconstitution and Storage:For short term use, store at 2-8C up to 1 week. For long term storage, store at -20C in small aliquots to prevent freeze-thaw cycles.

Images



WB Suggested Anti-MKL1 Antibody Titration: 1.25µg/ml
ELISA Titer: 1:1562500
Positive Control: NIH/3T3 cell lysate

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.