# MRTF-A Polyclonal Antibody

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| **Catalog No** | BYab-01878 |
| **Isotype** | IgG |
| **Reactivity** | Human;Mouse |
| **Applications** | WB;IHC;IF;ELISA |
| **Gene Name** | MKL1 |
| **Protein Name** | MKL/myocardin-like protein 1 |
| **Immunogen** | The antiserum was produced against synthesized peptide derived from human MKL1. AA range:10-59 |
| **Specificity** | MRTF-A Polyclonal Antibody detects endogenous levels of MRTF-A protein. |
| **Formulation** | Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% sodium azide. |
| **Source** | Polyclonal, Rabbit,IgG |
| **Purification** | The antibody was affinity-purified from rabbit antiserum by affinity-chromatography using epitope-specific immunogen. |
| **Dilution** | WB: 1/500 - 1/2000. IHC: 1/100 - 1/300. ELISA: 1/5000.. IF 1:50-200 |
| **Concentration** | 1 mg/ml |
| **Purity** | ≥90% |
| **Storage Stability** | -20°C/1 year |
| **Synonyms** | MKL1; KIAA1438; MAL; MKL/myocardin-like protein 1; Megakaryoblastic leukemia 1 protein; Megakaryocytic acute leukemia protein; Myocardin-related transcription factor A; MRTF-A |
| **Observed Band** | 99kD |
| **Cell Pathway** | Cytoplasm . Nucleus . 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 (By similarity). G-actin-binding in the cytoplasm inhibits nuclear import by masking the nuclear localization signal (NLS) (By similarity). In contrast, binding to nuclear globular actin (G-actin) promotes nuclear export to the cytoplasm (By similarity). 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 (PubM |
| **Tissue Specificity** | Ubiquitously expressed, has been detected in lung, placenta, small intestine, liver, kidney, spleen, thymus, colon, muscle, heart and brain (PubMed:11344311). |

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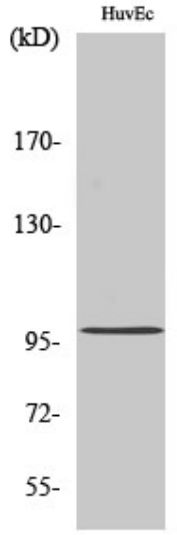
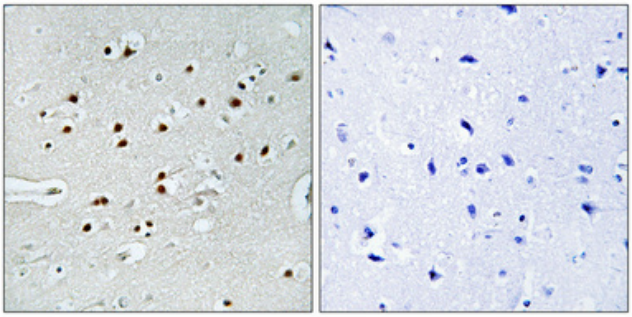
| | Expressed in peripheral blood mononuclear cells (at protein level) (PubMed:26224645). |
| **Function** | disease:A chromosomal aberration involving MKL1 may be a cause of acute megakaryoblastic leukemia. Translocation t(1;22)(p13;q13) with RBM15. Although both reciprocal fusion transcripts are detected in acute megakaryoblastic leukemia (AMKL, FAB-M7), the RBM15-MKL1 chimeric protein has all the putative functional domains encoded by each gene and is the candidate oncogene.,domain:The N-terminal region is required for nuclear localization and the C-terminal region mediates transcriptional activity.,function:Transcriptional factor which uses the canonical single or multiple CArG boxes DNA sequence. Acts as a cofactor of serum response factor (SRF) and has the potential to modulate SRF-target genes. Suppresses TNF-induced cell death by inhibiting activation of caspases; its transcriptional activity is indispensable for the antiapoptotic function. It may up-regulate antiapoptotic molecules, wh |
| **Background** | The protein encoded by this gene interacts with the transcription factor myocardin, a key regulator of smooth muscle cell differentiation. The encoded protein is predominantly nuclear and may help transduce signals from the cytoskeleton to the nucleus. This gene is involved in a specific translocation event that creates a fusion of this gene and the RNA-binding motif protein-15 gene. This translocation has been associated with acute megakaryocytic leukemia. Alternative splicing results in multiple transcript variants. [provided by RefSeq, Sep 2013], |
| **matters needing attention** | Avoid repeated freezing and thawing! |
| **Usage suggestions** | This product can be used in immunological reaction related experiments. For more information, please consult technical personnel. |

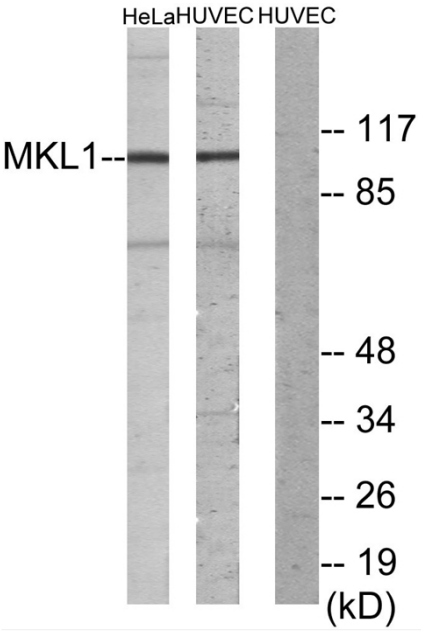
## Products Images




Western Blot analysis of various cells using MRTF-A Polyclonal Antibody



Immunohistochemical analysis of paraffin-embedded Human brain. Antibody was diluted at 1:100(4° overnight). High-pressure and temperature Tris-EDTA,pH8.0 was used for antigen retrieval. Negetive contrl (right) obtaned from antibody was pre-absorbed by immunogen peptide.




Western blot analysis of lysates from HUVEC and HeLa cells, using MKL1 Antibody. The lane on the right is blocked with the synthesized peptide.