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**Product Name: MLTK Rabbit Polyclonal Antibody****Catalog #: APRab13964**

For research use only.

**Summary**

|                      |   |
|----------------------|---|
| <b>Description</b>   | Rabbit polyclonal Antibody  |
| <b>Host</b>          | Rabbit  |
| <b>Application</b>   | WB,IHC  |
| <b>Reactivity</b>    | Human,Mouse   |
| <b>Conjugation</b>   | Unconjugated  |
| <b>Modification</b>  | Unmodified  |
| <b>Isotype</b>       | IgG   |
| <b>Clonality</b>     | Polyclonal  |
| <b>Form</b>          | Liquid  |
| <b>Concentration</b> | 1mg/ml  |
| <b>Storage</b>       | Aliquot and store at -20°C (valid for 12 months). Avoid freeze/thaw cycles.                       |
| <b>Shipping</b>      | Ice bags  |
| <b>Buffer</b>        | Liquid in PBS containing 50% glycerol, 0.5% protective protein and 0.02% New type preservative N. |
| <b>Purification</b>  | Affinity purification   |

**Application**

|                         |                                |
|-------------------------|--------------------------------|
| <b>Dilution Ratio</b>   | WB 1:500-1:2000,IHC 1:50-1:300 |
| <b>Molecular Weight</b> | 91kDa                          |

**Antigen Information**

|                          |   |
|--------------------------|---|
| <b>Gene Name</b>         | MLTK<br>MLTK; ZAK; HCCS4; Mitogen-activated protein kinase kinase kinase MLT; Human cervical  |
| <b>Alternative Names</b> | cancer suppressor gene 4 protein; HCCS-4; Leucine zipper- and sterile alpha motif-containing kinase; MLK-like mitogen-activated protein triple kinase; Mixe |
| <b>Gene ID</b>           | 51776.0   |
| <b>SwissProt ID</b>      | Q9NYL2  |
| <b>Immunogen</b>         | The antiserum was produced against synthesized peptide derived from human MLTK. AA range:701-750  |

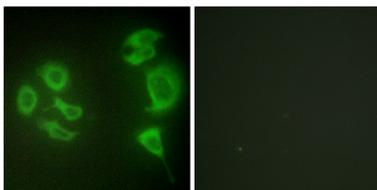
## Background

This gene is a member of the MAPKKK family of signal transduction molecules and encodes a protein with an N-terminal kinase catalytic domain, followed by a leucine zipper motif and a sterile-alpha motif (SAM). This magnesium-binding protein forms homodimers and is located in the cytoplasm. The protein mediates gamma radiation signaling leading to cell cycle arrest and activity of this protein plays a role in cell cycle checkpoint regulation in cells. The protein also has pro-apoptotic activity. Alternate transcriptional splice variants, encoding different isoforms, have been characterized. [provided by RefSeq, Jul 2008],catalytic activity:ATP + a protein = ADP + a phosphoprotein.,cofactor:Magnesium.,enzyme regulation:Activated by phosphorylation by PKN1 and autophosphorylation on Thr-161 and Ser-165.,function:Stress-activated component of a protein kinase signal transduction cascade. Regulates the JNK and p38 pathways. Pro-apoptotic. Role in regulation of S and G2 cell cycle checkpoint by direct phosphorylation of CHEK2. Isoform 1, but not isoform 2, causes cell shrinkage and disruption of actin stress fibers. Isoform 1 may have role in neoplastic cell transformation and cancer development. Isoform 1, but not isoform 2, phosphorylates histone H3 at 'Ser-28'.,similarity:Belongs to the protein kinase superfamily. STE Ser/Thr protein kinase family. MAP kinase kinase kinase subfamily.,similarity:Contains 1 protein kinase domain.,similarity:Contains 1 SAM (sterile alpha motif) domain.,subcellular location:Translocates to the nucleus upon ultraviolet B irradiation.,subunit:Homodimer. Interacts with PKN1 and ZNF33A.,tissue specificity:Ubiquitously expressed. Isoform 2 is the predominant form in all tissues examined, except for liver, in which isoform 1 is more highly expressed.,

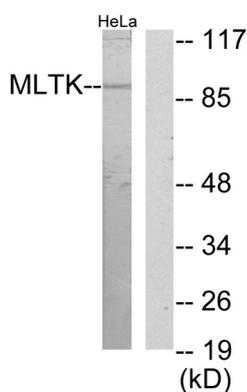
## Research Area

MAPK\_ERK\_Growth;MAPK\_G\_Protein;Tight junction;

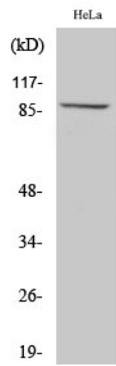
## Image Data



Immunofluorescence analysis of HepG2 cells, using MLTK Antibody. The picture on the right is blocked with the synthesized peptide.



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



Western Blot analysis of various cells using MLTK Polyclonal Antibody diluted at 1:1000