

# MLK3 Rabbit pAb

MLK3 Rabbit pAb Catalog # AP94721

#### **Product Information**

**Application** WB, IHC-P, IHC-F, IF

Primary Accession

Reactivity

Host

Clonality

Calculated MW

Physical State

Q6P2G4

Human

Polyclonal

Polyclonal

93 KDa

Liquid

Immunogen KLH conjugated synthetic peptide derived from human MLK3

Epitope Specificity 355-460/847

**Isotype** IgG

**Purity** affinity purified by Protein A

SUBCELLULAR LOCATION

**SIMILARITY** 

**Buffer** 

0.01M TBS (pH7.4) with 1% BSA, 0.02% Proclin300 and 50% Glycerol. Cytoplasm, cytoskeleton, centrosome. Note=Location is cell cycle dependent. Belongs to the protein kinase superfamily. STE Ser/Thr protein kinase family. MAP kinase kinase kinase subfamily. Contains 1 protein kinase domain.

Contains 1 SH3 domain.

**SUBUNIT** Homodimer; undergoes dimerization during activation.

**Post-translational**Mutophosphorylation on serine and threonine residues within the activation loop plays a role in enzyme activation. Thr-277 is likely to be the main

autophosphorylation site. Phosphorylation of Ser-555 and Ser-556 is induced

by CDC42.

**Important Note** This product as supplied is intended for research use only, not for use in

human, therapeutic or diagnostic applications.

Background Descriptions Members of the mixed-lineage kinase (MLK) family (including MLK1, MLK2,

MLK3, and dual leucine zipper kinase [DLK]) are serine/threonine protein kinases that are expressed in multiple cell types. MLK3 is activated by phosphorylation in response to stress stimuli (e.g., inflammatory responses, UV, chemical stress) that are coupled to the small GTPase, Cdc42/rac. MLK3 is a multifunctional kinase that plays an essential role in several signaling pathways, including mitogen-activated protein kinase (i.e. activation of JNK and p38), IkappaB/NFkappaB, and p70 S6 kinase. Indeed MLK3 signaling occurs through multiple signaling domains in this protein kinase including (from N- to C-terminal) a glycine-rich domain, Src homology 3 (SH3) domain, a kinase domain, a zipper domain, a Cdc42/rac interactive binding (CRIB) domain and a Pro/Ser/Thr-rich domain. Phosphorylation of MLK3 occurs on

multiple residues including threonine 277 and serine 281 within the activation loop of the kinase domain.

## **Additional Information**

Target/Specificity

Expressed in a wide variety of normal and neoplastic tissues including fetal

lung, liver, heart and kidney, and adult lung, liver, heart, kidney, placenta,

skeletal muscle, pancreas and brain.

**Dilution** WB=1:500-2000,IHC-P=1:100-500,IHC-F=1:100-500

Format 0.01M TBS(pH7.4) with 1% BSA, 0.09% (W/V) sodium azide and 50% Glyce

**Storage** Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. When

reconstituted in sterile pH 7.4 0.01M PBS or diluent of antibody the antibody

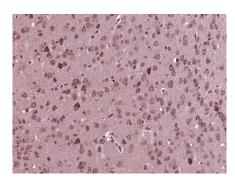
is stable for at least two weeks at 2-4 °C.

#### **Protein Information**

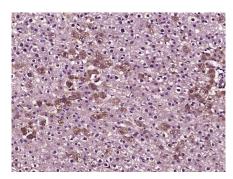
## **Background**

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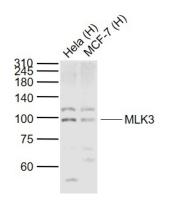
### **Images**



Paraformaldehyde-fixed, paraffin embedded (Mouse brain); Antigen retrieval by boiling in sodium citrate buffer (pH6.0) for 15min; Block endogenous peroxidase by 3% hydrogen peroxide for 20 minutes; Blocking buffer (normal goat serum) at 37°C for 30min; Antibody incubation with (MLK3) Polyclonal Antibody, Unconjugated (AP94721) at 1:400 overnight at 4°C, followed by operating according to SP Kit(Rabbit) (sp-0023) instructions and DAB staining.



Paraformaldehyde-fixed, paraffin embedded (Rat liver); Antigen retrieval by boiling in sodium citrate buffer (pH6.0) for 15min; Block endogenous peroxidase by 3% hydrogen peroxide for 20 minutes; Blocking buffer (normal goat serum) at 37°C for 30min; Antibody incubation with (MLK3) Polyclonal Antibody, Unconjugated (AP94721) at 1:400 overnight at 4°C, followed by operating according to SP Kit(Rabbit) (sp-0023) instructions and DAB staining.



Sample: Lane 1: Hela (Human) Cell Lysate at 30 ug Lane 2: MCF-7 (Human) Cell Lysate at 30 ug Primary: Anti-MLK3 (AP94721) at 1/1000 dilution Secondary: IRDye800CW Goat Anti-Rabbit IgG at 1/20000 dilution Predicted band size: 93 kD Observed band size: 98 kD

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