

**MLK1 Antibody (C-term)**  
**Purified Rabbit Polyclonal Antibody (Pab)**  
**Catalog # AP7919a****Specification**

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**MLK1 Antibody (C-term) - Product Information**

Application	WB, IHC-P,E
Primary Accession	<a href="#">P80192</a>
Reactivity	Human
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Antigen Region	1070-1104

**MLK1 Antibody (C-term) - Additional Information****Gene ID** 4293**Other Names**

Mitogen-activated protein kinase kinase kinase 9, Mixed lineage kinase 1, MAP3K9, MLK1, PRKE1

**Target/Specificity**

This MLK1 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 1070-1104 amino acids from the C-terminal region of human MLK1.

**Dilution**

WB~~1:1000

IHC-P~~1:50~100

**Format**

Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is prepared by Saturated Ammonium Sulfate (SAS) precipitation followed by dialysis against PBS.

**Storage**

Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

**Precautions**

MLK1 Antibody (C-term) is for research use only and not for use in diagnostic or therapeutic procedures.

**MLK1 Antibody (C-term) - Protein Information****Name** MAP3K9**Synonyms** MLK1, PRKE1**Function** Serine/threonine kinase which acts as an essential component of the MAP kinase signal

transduction pathway. Plays an important role in the cascades of cellular responses evoked by changes in the environment. Once activated, acts as an upstream activator of the MKK/JNK signal transduction cascade through the phosphorylation of MAP2K4/MKK4 and MAP2K7/MKK7 which in turn activate the JNKs. The MKK/JNK signaling pathway regulates stress response via activator protein-1 (JUN) and GATA4 transcription factors. Also plays a role in mitochondrial death signaling pathway, including the release cytochrome c, leading to apoptosis.

#### Tissue Location

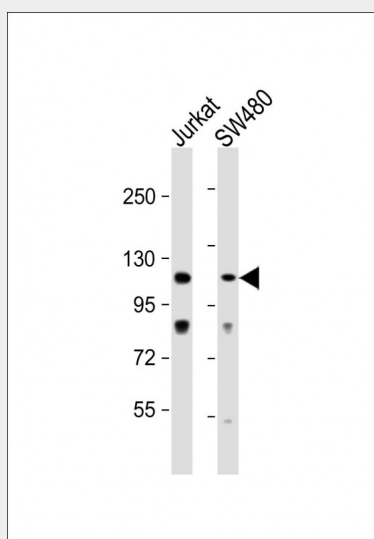
Expressed in epithelial tumor cell lines of colonic, breast and esophageal origin.

#### MLK1 Antibody (C-term) - Protocols

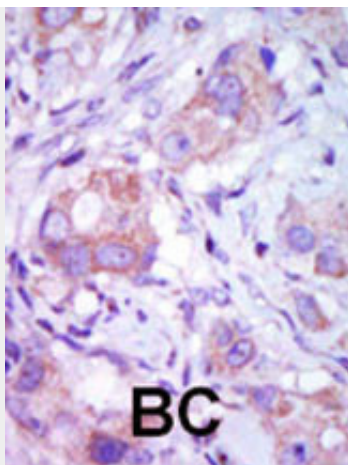
Provided below are standard protocols that you may find useful for product applications.

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

#### MLK1 Antibody (C-term) - Images



All lanes : Anti-MLK1 Antibody (C-term) at 1:1000 dilution Lane 1: Jurkat whole cell lysate Lane 2: SW480 whole cell lysate Lysates/proteins at 20 µg per lane. Secondary Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated at 1/10000 dilution. Predicted band size : 122 kDa Blocking/Dilution buffer: 5% NFDM/TBST.



Formalin-fixed and paraffin-embedded human cancer tissue reacted with the primary antibody, which was peroxidase-conjugated to the secondary antibody, followed by DAB staining. This data demonstrates the use of this antibody for immunohistochemistry; clinical relevance has not been evaluated. BC = breast carcinoma; HC = hepatocarcinoma.

#### **MLK1 Antibody (C-term) - Background**

MLK1 is a MLK(MAP3K) type protein kinase. The catalytic domain of mixed-lineage kinases (MLKs) kinases have amino acid sequence similarity to both the tyr-specific and the ser/thr-specific kinase classes. In addition to the unusual nature of the kinase catalytic domains, MLK1 and MLK2 contain 2 leu/ile-zipper motifs and a basic sequence near their C-termini. MLK1 is a member of the neuronal apoptotic JNK/c-Jun pathway acting between Rac1/Cdc42 and MKK4 and -7 in death signaling. MLK1 expression has been documented in human epithelial tumor cell lines of colonic, breast and esophageal origin.

#### **MLK1 Antibody (C-term) - References**

Durkin, J.T., et al., Biochemistry 43(51):16348-16355 (2004).  
Gallo, K.A., et al., J. Biol. Chem. 269(21):15092-15100 (1994).  
Dorow, D.S., et al., Eur. J. Biochem. 213(2):701-710 (1993).

#### **MLK1 Antibody (C-term) - Citations**

- [Ablation of mixed lineage kinase 3 \(Mlk3\) does not inhibit ototoxicity induced by acoustic trauma or aminoglycoside exposure.](#)
- [Mixed lineage kinase-3 stabilizes and functionally cooperates with TRIBBL-3 to compromise mitochondrial integrity in cytokine-induced death of pancreatic beta cells.](#)
- [Identification of genes differentially expressed as result of adenovirus type 5- and adenovirus type 12-transformation.](#)