

# MLKL Polyclonal Antibody

Catalog # AP70971

### **Product Information**

Application WB
Primary Accession Q8NB16
Reactivity Human
Host Rabbit
Clonality Polyclonal
Calculated MW 54479

#### **Additional Information**

**Gene ID** 197259

Other Names MLKL; Mixed lineage kinase domain-like protein

Dilution WB~~Western Blot: 1/500 - 1/2000. ELISA: 1/20000. Not yet tested in other

applications.

Format Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.09% (W/V) sodium

azide.

Storage Conditions -20°C

### **Protein Information**

Name MLKL {ECO:0000303 | PubMed:22265413, ECO:0000312 | HGNC:HGNC:26617}

**Function** Pseudokinase that plays a key role in TNF-induced necroptosis, a

programmed cell death process (PubMed:<u>22265413</u>, PubMed:<u>22265414</u>, PubMed:<u>22421439</u>, PubMed:<u>24316671</u>). Does not have protein kinase activity

(PubMed: 22265413, PubMed: 22265414, PubMed: 22421439,

PubMed:<u>24316671</u>). Activated following phosphorylation by RIPK3, leading to homotrimerization, localization to the plasma membrane and execution of programmed necrosis characterized by calcium influx and plasma membrane

damage (PubMed:<u>22265413</u>, PubMed:<u>22265414</u>, PubMed:<u>22421439</u>,

PubMed:24316671). In addition to TNF-induced necroptosis, necroptosis can also take place in the nucleus in response to orthomyxoviruses infection: following activation by ZBP1, MLKL is phosphorylated by RIPK3 in the nucleus, triggering disruption of the nuclear envelope and leakage of cellular DNA into the cytosol.following ZBP1 activation, which senses double-stranded Z-RNA structures, nuclear RIPK3 catalyzes phosphorylation and activation of MLKL, promoting disruption of the nuclear envelope and leakage of cellular DNA into the cytosol (By similarity). Binds to highly phosphorylated inositol phosphates such as inositolhexakisphosphate (InsP6) which is essential for its necroptotic function (PubMed:29883610).

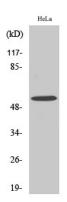
#### **Cellular Location**

Cytoplasm. Cell membrane Nucleus {ECO:0000250 | UniProtKB:Q9D2Y4}. Note=Localizes to the cytoplasm and translocates to the plasma membrane on necroptosis induction (PubMed:24316671). Localizes to the nucleus in response to orthomyxoviruses infection (By similarity) {ECO:0000250 | UniProtKB:Q9D2Y4, ECO:0000269 | PubMed:24316671}

# **Background**

Pseudokinase that plays a key role in TNF-induced necroptosis, a programmed cell death process. Activated following phosphorylation by RIPK3, leading to homotrimerization, localization to the plasma membrane and execution of programmed necrosis characterized by calcium influx and plasma membrane damage. Does not have protein kinase activity (PubMed:22265413, PubMed:22265414, PubMed:22421439, PubMed:24316671). Binds to highly phosphorylated inositol phosphates such as inositolhexakisphosphate (InsP6) which is essential for its necroptotic function (PubMed:29883610).

## **Images**



Western Blot analysis of various cells using MLKL Polyclonal Antibody diluted at 1:500

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