10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

KD-Validated Anti-MLKL Rabbit Monoclonal Antibody

Rabbit monoclonal antibody
Catalog # AGI1258

Specification

KD-Validated Anti-MLKL Rabbit Monoclonal Antibody - Product Information

Application	**WB, FC, ICC**
Primary Accession	Q8NB16
Reactivity	**Human**
Clonality	**Monoclonal**
Isotype	**Rabbit IgG**
Calculated MW	**Predicted, 54 kDa , observed, 54 kDa KDa**
Gene Name	**MLKL**
Aliases	**Mixed Lineage Kinase Domain-Like Protein; FLJ34389; HMLKL; Mixed Lineage Kinase Domain-Like**
Immunogen	**A synthesized peptide derived from human MLKL**

KD-Validated Anti-MLKL Rabbit Monoclonal Antibody - Additional Information

Gene ID **197259**

Other Names
Mixed lineage kinase domain-like protein, hMLKL, MLKL {ECO:0000303|PubMed:22265413, ECO:0000312|HGNC:HGNC:26617}

KD-Validated Anti-MLKL Rabbit Monoclonal Antibody - 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:22265413, PubMed:22265414, PubMed:22421439, PubMed:24316671). Does not have protein kinase activity (PubMed:22265413, PubMed:22265414, PubMed:22421439, PubMed:24316671). 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:22265413, PubMed:22265414, PubMed:22421439, 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).

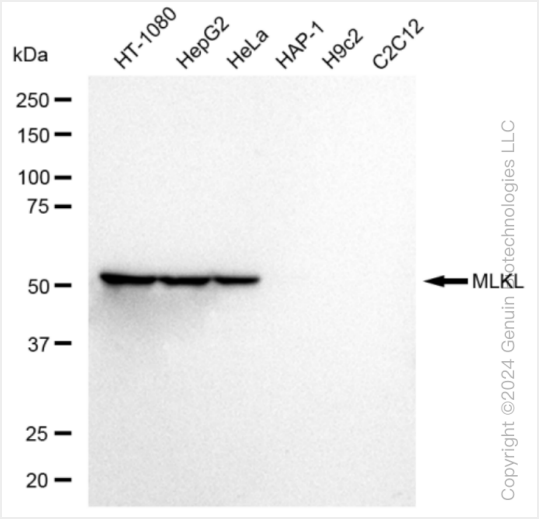
Cellular Location
Cytoplasm. Cell membrane Nucleus {ECO:0000250|UniProtKB:Q9D2Y4}. Note=Localizes to the cytoplasm and translocates to the plasma membrane on necroptosis induction (PubMed:24316671). Localizes to the nucleus in response to orthomyxoviruses infection (By similarity) {ECO:0000250|UniProtKB:Q9D2Y4,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

KD-Validated Anti-MLKL Rabbit Monoclonal Antibody - Protocols

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

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

KD-Validated Anti-MLKL Rabbit Monoclonal Antibody - Images



Western blotting analysis using anti-MLKL antibody (Cat#AGI1258). Total cell lysates (30 µg) from various cell lines were loaded and separated by SDS-PAGE. The blot was incubated with anti-MLKL antibody (Cat#AGI1258, 1:5,000) and HRP-conjugated goat anti-rabbit secondary antibody respectively.

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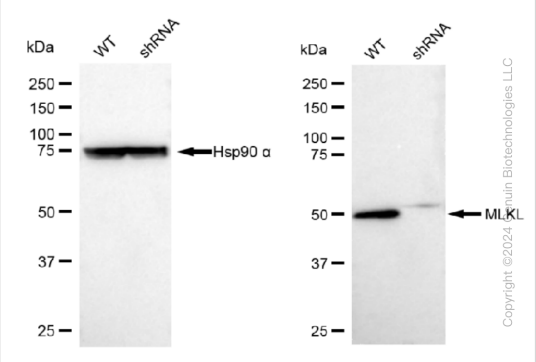
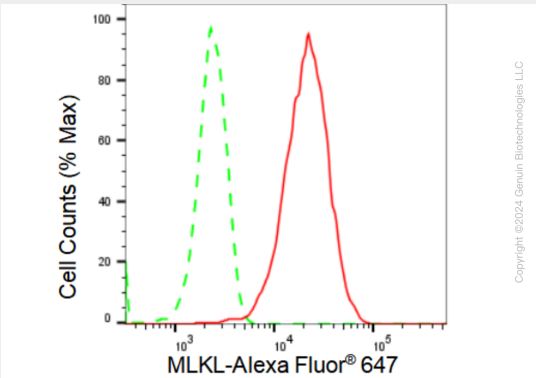
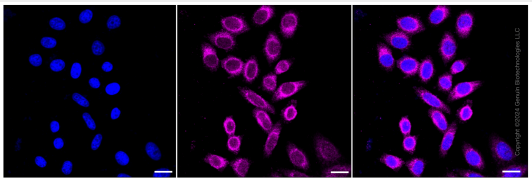


Western blotting analysis using anti-MLKL antibody (Cat#AGI1258). MLKL expression in wild type (WT) and MLKL shRNA knockdown (KD) HeLa cells with 30 µg of total cell lysates. Hsp90 α serves as a loading control. The blot was incubated with anti-MLKL antibody (Cat#AGI1258, 1:5,000) and HRP-conjugated goat anti-rabbit secondary antibody respectively.



Flow cytometric analysis of MLKL expression in HepG2 cells using MLKL antibody (Cat#AGI1258, 1:2,000). Green, isotype control; red, MLKL.



Immunocytochemical staining of HepG2 cells with MLKL antibody (Cat#AGI1258, 1:1,000). Nuclei were stained blue with DAPI; MLKL was stained magenta with Alexa Fluor® 647. Images were taken using Leica stellaris 5. Protein abundance based on laser Intensity and smart gain: Medium. Scale bar: 20 µm.