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MLKL Antibody (clone 3B2)

Mouse Monoclonal Antibody
Catalog # ALS14684

Specification

MLKL Antibody (clone 3B2) - Product Information

Application	**IHC**
Primary Accession	Q8NB16
Reactivity	**Human**
Host	**Mouse**
Clonality	**Monoclonal**
Calculated MW	**54kDa KDa**

MLKL Antibody (clone 3B2) - Additional Information

Gene ID 197259

Other Names
Mixed lineage kinase domain-like protein, hMLKL, MLKL {ECO:0000312|EMBL:AAH28141.1}

Target/Specificity
Human MLKL

Reconstitution & Storage
Short term 4°C, long term aliquot and store at -20°C, avoid freeze thaw cycles.

Precautions
MLKL Antibody (clone 3B2) is for research use only and not for use in diagnostic or therapeutic procedures.

MLKL Antibody (clone 3B2) - 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:<a href="http://www.uniprot.org/citations/22265413"

target="_blank">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).

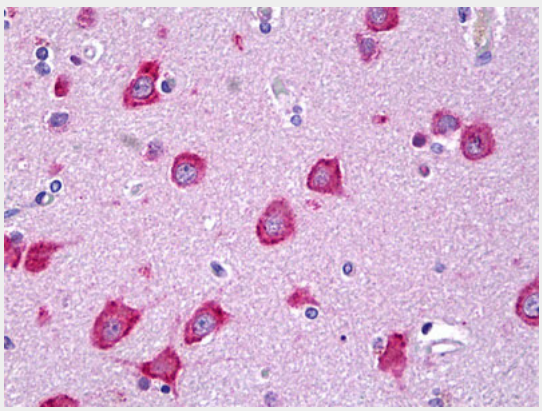
Cellular Location
Cytoplasm. Cell membrane Nucleus {ECO:0000250|UniProtKB:Q9D2Y4}. Note=Localizes to the cytoplasm and translocates to the plasma membrane on necroptosis induction (PubMed:24316671). Localizes to the nucleus in response to orthomyxoviruses infection (By similarity) {ECO:0000250|UniProtKB:Q9D2Y4,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

MLKL Antibody (clone 3B2) - 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

MLKL Antibody (clone 3B2) - Images



Anti-MLKL antibody IHC of human brain, cortex neurons.

MLKL Antibody (clone 3B2) - 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.

MLKL Antibody (clone 3B2) - References

Manning G.,et al.Science 298:1912-1934(2002).
Ota T.,et al.Nat. Genet. 36:40-45(2004).
Martin J.,et al.Nature 432:988-994(2004).
Daub H.,et al.Mol. Cell 31:438-448(2008).
Dephoure N.,et al.Proc. Natl. Acad. Sci. U.S.A. 105:10762-10767(2008).