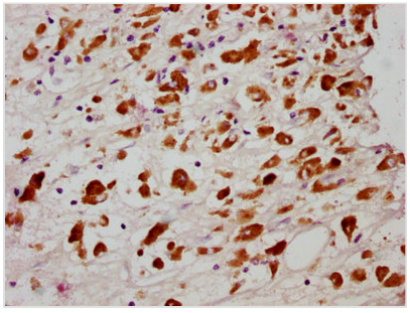
Phospho-MLKL (S358) Recombinant Monoclonal Antibody

Product Code	CSB-RA850851A358phHU
Abbreviation	Mixed lineage kinase domain-like protein
Storage	Upon receipt, store at -20°C or -80°C. Avoid repeated freeze.
Uniprot No.	Q8NB16
Immunogen	A synthesized peptide derived from Human Phospho-MLKL (S358)
Species Reactivity	Human
Tested Applications	ELISA, IHC; Recommended dilution: IHC:1:50-1:200
Relevance	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.
Form	Liquid
Conjugate	Non-conjugated
Storage Buffer	Rabbit IgG in phosphate buffered saline , pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol.
Purification Method	Affinity-chromatography
Isotype	Rabbit IgG
Clonality	Monoclonal
Alias	Mixed lineage kinase domain-like protein, hMLKL, MLKL
Immunogen Species	Homo sapiens (Human)
Research Area	Signal Transduction
Gene Names	MLKL
Clone No.	4A6

Image



IHC image of CSB-RA850851A358phHU diluted at 1:100 and staining in paraffin-embedded human melanoma cancer performed on a Leica BondTM system. After dewaxing and hydration, antigen retrieval was mediated by high pressure in a citrate buffer (pH 6.0). Section was blocked with 10% normal goat serum 30min at RT. Then primary antibody (1% BSA) was incubated at 4? overnight. The primary is detected by a biotinylated secondary antibody and visualized using an HRP conjugated SP system.

Description

CUSABIO cloned MLKL antibody-coding genes into plasma vectors and then transfected these vector clones into mammalian cells using a lipid-based transfection reagent. Following transient expression, the recombinant antibodies against MLKL were harvested and characterized. The recombinant MLKL antibody was purified by affinity-chromatography from the culture medium. It can be used to detect MLKL protein from Human in the ELISA, IHC.

MLKL belongs to the protein kinase superfamily. The encoded protein contains a protein kinase-like domain. It is considered inactive because it lacks several residues required for activity. Diseases associated with MLKL include young adulthood diabetes and inflammatory bowel disease. Its related pathways include DNA damage response and regulation of c-FLIP. According to some studies, MLKL may have the following characteristics.
MLKL is a functional RIP3 substrate that binds to RIP3 through its kinase-like structure, but lacks kinase activity itself. RIP3 phosphorylates MLKL at T357 and S358. Modification of MLKL is critical for dissemination of the necrotic pathway downstream of RIPK3. Plasma membrane transport of trimeric MLKL protein is required for TNF-induced necrosis. In the absence of MLKL, RIPK3 promotes cell death and activation of the NLRP3 inflammasome. MLKL plays an important role in the necrosis of macrophages and MEFs.