

DESCRIPTION

Species Reactivity	Human
Specificity	Detects human MLKL when phosphorylated at T357.
Source	Monoclonal Mouse IgG _{2A} Clone # 954702
Purification	Protein A or G purified from cell culture supernatant
Immunogen	Phosphopeptide containing the human MLKL T357 site Accession # Q8NB16
Formulation	Lyophilized from a 0.2 µm filtered solution in PBS with Trehalose. See Certificate of Analysis for details. *Small pack size (-SP) is supplied as a 0.2 µm filtered solution in PBS.

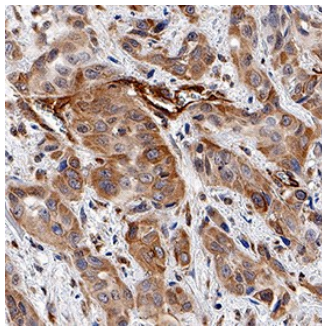
APPLICATIONS

Please Note: Optimal dilutions should be determined by each laboratory for each application. *General Protocols* are available in the *Technical Information* section on our website.

	Recommended Concentration	Sample
Immunohistochemistry	1-25 µg/mL	See Below

DATA

Immunohistochemistry



Phospho-MLKL (T357) in Human Squamous Cell Carcinoma. MLKL phosphorylated at T357 was detected in immersion fixed paraffin-embedded sections of human squamous cell carcinoma using Mouse Anti-Human Phospho-MLKL (T357) Monoclonal Antibody (Catalog # MAB9187) at 5 µg/mL for 1 hour at room temperature followed by incubation with the Anti-Mouse IgG VisUCyte™ HRP Polymer Antibody (Catalog # VC001). Tissue was stained using DAB (brown) and counterstained with hematoxylin (blue). Specific staining was localized to cytoplasm in cancer cells. View our protocol for IHC Staining with VisUCyte HRP Polymer Detection Reagents.

PREPARATION AND STORAGE

Reconstitution	Reconstitute at 0.5 mg/mL in sterile PBS.
Shipping	The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below. *Small pack size (-SP) is shipped with polar packs. Upon receipt, store it immediately at -20 to -70 °C
Stability & Storage	Use a manual defrost freezer and avoid repeated freeze-thaw cycles. <ul style="list-style-type: none"> ● 12 months from date of receipt, -20 to -70 °C as supplied. ● 1 month, 2 to 8 °C under sterile conditions after reconstitution. ● 6 months, -20 to -70 °C under sterile conditions after reconstitution.

BACKGROUND

Mixed Lineage Kinase Domain-Like (MLKL) is a 471 amino acid member of the protein kinase superfamily, but lacks several amino acid residues necessary for kinase activity. Phosphorylation of MLKL at T357 and S358 by receptor-interacting protein 3 (RIP3) causes trimerization and translocation of MLKL from the cytosol to the plasma membrane, where it mediates TNF-alpha induced necroptosis through membrane degradation and calcium influx. Low expression of MLKL has been found to be correlated with poor prognosis in cervical squamous cell carcinoma, pancreatic cancer, and ovarian cancer. Conversely, high expression of RIPK3 and MLKL in esophageal and colon cancer is associated with poor overall survival, possibly by promoting inflammatory cytokine production, sustaining tumor growth.