Human/Mouse/Rat MLK4α Antibody

Antigen Affinity-purified Polyclonal Rabbit IgG
Catalog Number: AF3435

DESCRIPTION

Species Reactivity	Human/Mouse/Rat
Specificity	Detects endogenous human, mouse, and rat MLK4α. Because the peptide immunogen corresponds to a region at the C-terminus of MLK4α absent in MLK4β, no reactivity with MLK4β is present.
Source	Polyclonal Rabbit IgG
Purification	Antigen Affinity-purified
Immunogen	Human MLK4α synthetic peptide (aa 560 - 570) ELSALPPGLLC Accession # CAC84639
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.

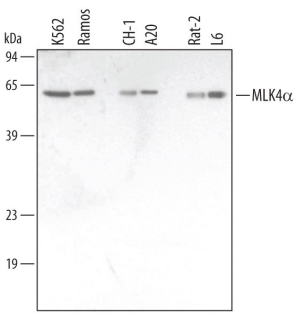
APPLICATIONS

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
Western Blot	1 µg/mL	See Below
Immunohistochemistry	5-15 µg/mL	See Below

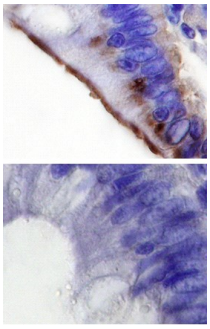
DATA

Western Blot



Detection of Human/Mouse/Rat MLK4α by Western Blot. Western blot shows lysates of K562 human chronic myelogenous leukemia cell line, Ramos human Burkitt's lymphoma cell line, A20 mouse B cell lymphoma cell line, CH-1 mouse B cell lymphoma cell line, Rat-2 rat embryonic fibroblast cell line, and L6 rat myoblast cell line. PVDF membrane was probed with 1 µg/mL of Human/Mouse/Rat MLK4α Antigen Affinity-purified Polyclonal Antibody (Catalog # AF3435) followed by HRP-conjugated Anti-Rabbit IgG Secondary Antibody (Catalog # HAF008). A specific band was detected for MLK4α at approximately 62 kDa (as indicated). This experiment was conducted under reducing conditions and using Immunoblot Buffer Group 1.

Immunohistochemistry



MLK4α in Human Colon Cancer Tissue. MLK4α was detected in immersion fixed paraffin-embedded sections of human colon cancer tissue using 10 µg/mL Human/Mouse/Rat MLK4α Antigen Affinity-purified Polyclonal Antibody (Catalog # AF3435) overnight at 4 °C. Before incubation with the primary antibody tissue was subjected to heat-induced epitope retrieval using Antigen Retrieval Reagent-Basic (Catalog # CTS013). Tissue was stained with the Anti-Rabbit HRP-DAB Cell & Tissue Staining Kit (brown; Catalog # CTS005) and counterstained with hematoxylin (blue). Specific labeling was localized to microvilli of epithelial cells. Lower panel shows a lack of labeling if primary antibodies are omitted and tissue is stained only with secondary antibody followed by incubation with detection reagents. View our protocol for Chromogenic IHC Staining of Paraffin-embedded Tissue Sections.

PREPARATION AND STORAGE

Reconstitution	Reconstitute at 0.2 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.** ● 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 kinases (MLKs) function as mitogen-activated protein kinase kinase kinases (MAP3Ks), activating the p38 and JNK signaling cascades. The potential importance of MLK4's role in cell regulation has been indicated by the finding of nine separate *mlk4* point mutations in a recent sampling of colorectal cancers. MLK4 has two splice variants, with MLK4α containing a different and shorter C-terminus than MLK4β.

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