

Polyclonal Antibody to MLK-3

Cat. #: Mab-605004 (0.1mg)

Description:

Mixed lineage kinase-3 (MLK-3) is a 97 kDa serine/threonine kinase with multiple interaction domains, including a Cdc42 binding motif, but unknown function. In support of this role, we demonstrate that MLK-3 can specifically activate the SAPK/JNK and p38/RK pathways, but has no effect on the activation of ERKs. Immunoprecipitated MLK-3 catalyzed the phosphorylation of SEK1 in vitro, and co-transfected MLK-3 induced phosphorylation of SEK1 and MKK3 at sites required for activation, suggesting direct regulation of these protein kinases. Furthermore, interactions between MLK-3 and SEK and MLK-3 and MKK6 were observed in co-precipitation experiments. Finally, kinase-dead mutants of MLK-3 blocked activation of the SAPK pathway by a newly identified mammalian analog of Ste20, germinal center kinase, but not by MEKK, suggesting that MLK-3 functions to activate the SAPK/JNK and p38/RK cascades in response to stimuli transduced by Ste20-like kinases.

Immunogen/Specificity:

Ni-NTA purified recombinant human MLK-3 expressed in *E. Coli* strain M15.

Applications :

Western Blot: Dilution 1: 500- 1,000

ELISA: Determining optimal working dilutions by titration test.

Formulation

Rabbit anti-serum.

Reference:

1. Rana, A. Gallo, K. Godowski, P. Hirai, S., Ohno, S. Zon, L., Kyriakis, J.M. and Avruch, J. The mixed lineage kinase SPRK phosphorylates and activates the stress-activated protein kinase activator, SEK-1. *J. Biol. Chem.* 1996. 271, 19025.

Clone Number:

Isotype:

Species: Human

Storage and Stability: stored at -20 C

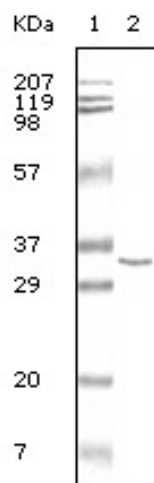


Figure 1: Western blot analysis using anti-human MLK-3 polyclonal antibody against recombinant expressed human MLK-3 in *E.coli*.