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Anti-MAP3K20 Picoband Antibody

Catalog # ABO10125

Product Information

Application	WB, E
Primary Accession	Q9NYL2
Host	Rabbit
Reactivity	Human, Mouse, Rat
Clonality	Polyclonal
Format	Lyophilized
Description	Rabbit IgG polyclonal antibody for MAP3K20 detection. Tested with WB, Direct ELISA in Human;Mouse;Rat.
Reconstitution	Add 0.2ml of distilled water will yield a concentration of 500ug/ml.

Additional Information

Gene ID	51776
Other Names	Mitogen-activated protein kinase kinase kinase MLT, 2.7.11.25, Human cervical cancer suppressor gene 4 protein, HCCS-4, Leucine zipper- and sterile alpha motif-containing kinase, MLK-like mitogen-activated protein triple kinase, Mixed lineage kinase-related kinase, MLK-related kinase, MRK, Sterile alpha motif- and leucine zipper-containing kinase AZK, ZAK, MLTK
Calculated MW	91155
Application Details	Western blot, 0.1-0.5 □g/ml Direct ELISA, 0.1-0.5 □g/ml
Subcellular Localization	Cytoplasm.
Tissue Specificity	Ubiquitously expressed. Isoform 2 is the predominant form in all tissues examined, except for liver, in which isoform 1 is more highly expressed.
Source	Eukaryota
Contents	Each vial contains 4mg Trehalose, 0.9mg NaCl, 0.2mg Na_2HPO_4, 0.05mg NaN_3.
Immunogen	E. coli-derived human MAP3K20 recombinant protein (Position: F276-E511).
Cross Reactivity	No cross reactivity with other proteins.
Storage	At -20˚C; for one year. After r˚Constitution, at 4˚C; for one month. It˚Can also be aliquotted and stored frozen at -20˚C; for a longer time. Avoid repeated freezing and thawing.

Protein Information

Name	MAP3K20 (HGNC:17797)
Function	Stress-activated component of a protein kinase signal transduction cascade that promotes programmed cell death in response to various stress, such as ribosomal stress, osmotic shock and ionizing radiation (PubMed:10924358, PubMed:11836244, PubMed:12220515, PubMed:14521931, PubMed:15350844, PubMed:15737997, PubMed:18331592, PubMed:20559024, PubMed:26999302, PubMed:32289254, PubMed:32610081, PubMed:35857590). Acts by catalyzing phosphorylation of MAP kinase kinases, leading to activation of the JNK (MAPK8/JNK1, MAPK9/JNK2 and/or MAPK10/JNK3) and MAP kinase p38 (MAPK11, MAPK12, MAPK13 and/or MAPK14) pathways (PubMed:11042189, PubMed:11836244, PubMed:12220515, PubMed:14521931, PubMed:15172994, PubMed:15737997, PubMed:32289254, PubMed:32610081, PubMed:35857590). Activates JNK through phosphorylation of MAP2K4/MKK4 and MAP2K7/MKK7, and MAP kinase p38 gamma (MAPK12) via phosphorylation of MAP2K3/MKK3 and MAP2K6/MKK6 (PubMed:11836244, PubMed:12220515). Involved in stress associated with adrenergic stimulation: contributes to cardiac decompensation during periods of acute cardiac stress (PubMed:15350844, PubMed:21224381, PubMed:27859413). May be involved in regulation of S and G2 cell cycle checkpoint by mediating phosphorylation of CHEK2 (PubMed:15342622).
Cellular Location	Cytoplasm. Nucleus. Note=Translocates to the nucleus upon ultraviolet B irradiation.
Tissue Location	Ubiquitously expressed. Isoform ZAKbeta is the predominant form in all tissues examined, except for liver, in which isoform ZAKalpha is more highly expressed

Background

Sterile alpha motif and leucine zipper containing kinase AZK, also known as ZAK, is a human gene. This gene is a member of the MAPKKK family of signal transduction molecules and encodes a protein with an N-terminal kinase catalytic domain, followed by a leucine zipper motif and a sterile-alpha motif (SAM). This magnesium-binding protein forms homodimers and is located in the cytoplasm. The protein mediates gamma radiation signaling leading to cell cycle arrest and activity of this protein plays a role in cell cycle checkpoint regulation in cells. The protein also has pro-apoptotic activity. Alternate transcriptional splice variants, encoding different isoforms, have been characterized.

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