

Anti-SAPK4 Antibody

Catalog # ABO11248

Product Information

Application	WB
Primary Accession	O15264
Host	Rabbit
Reactivity	Human, Mouse, Rat
Clonality	Polyclonal
Format	Lyophilized
Description	Rabbit IgG polyclonal antibody for Mitogen-activated protein kinase 13(MAPK13) detection. Tested with WB in Human;Mouse;Rat.
Reconstitution	Add 0.2ml of distilled water will yield a concentration of 500ug/ml.

Additional Information

Gene ID	5603
Other Names	Mitogen-activated protein kinase 13, MAP kinase 13, MAPK 13, 2.7.11.24, Mitogen-activated protein kinase p38 delta, MAP kinase p38 delta, Stress-activated protein kinase 4, MAPK13, PRKM13, SAPK4
Calculated MW	42090
Application Details	Western blot, 0.1-0.5 µg/ml, Human, Mouse, Rat
Tissue Specificity	Expressed in testes, pancreas, small intestine, lung and kidney. Abundant in macrophages, also present in neutrophils, CD4+ T-cells, and endothelial cells. .
Source	Eukaryota
Protein Name	Mitogen-activated protein kinase 13
Contents	Each vial contains 5mg BSA, 0.9mg NaCl, 0.2mg Na ₂ HPO ₄ , 0.05mg Thimerosal, 0.05mg Na ₃ .
Immunogen	A synthetic peptide corresponding to a sequence at the C-terminus of human SAPK4(343-360aa YKEIVNFSPIARKDSRRR), different from the related rat and mouse sequences by one amino acid.
Purification	Immunogen affinity purified.
Cross Reactivity	No cross reactivity with other proteins
Storage	At -20 °C for one year. After reconstitution, at 4 °C for one month. It can also

Sequence Similarities

be aliquotted and stored frozen at -20 °C for a longer time. Avoid repeated freezing and thawing.

Belongs to the protein kinase superfamily. CMGC Ser/Thr protein kinase family. MAP kinase subfamily.

Protein Information

Name

MAPK13 ([HGNC:6875](#))

Function

Serine/threonine kinase which acts as an essential component of the MAP kinase signal transduction pathway. MAPK13 is one of the four p38 MAPKs which play an important role in the cascades of cellular responses evoked by extracellular stimuli such as pro-inflammatory cytokines or physical stress leading to direct activation of transcription factors such as ELK1 and ATF2. Accordingly, p38 MAPKs phosphorylate a broad range of proteins and it has been estimated that they may have approximately 200 to 300 substrates each. MAPK13 is one of the less studied p38 MAPK isoforms. Some of the targets are downstream kinases such as MAPKAPK2, which are activated through phosphorylation and further phosphorylate additional targets. Plays a role in the regulation of protein translation by phosphorylating and inactivating EEF2K. Involved in cytoskeletal remodeling through phosphorylation of MAPT and STMN1. Mediates UV irradiation induced up-regulation of the gene expression of CXCL14. Plays an important role in the regulation of epidermal keratinocyte differentiation, apoptosis and skin tumor development. Phosphorylates the transcriptional activator MYB in response to stress which leads to rapid MYB degradation via a proteasome-dependent pathway. MAPK13 also phosphorylates and down-regulates PRKD1 during regulation of insulin secretion in pancreatic beta cells.

Tissue Location

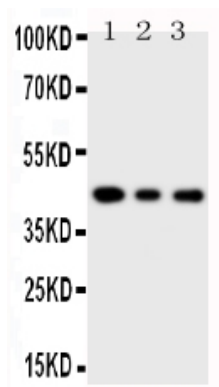
Expressed in testes, pancreas, small intestine, lung and kidney. Abundant in macrophages, also present in neutrophils, CD4+ T-cells, and endothelial cells.

Background

MAPK13 (Mitogen-Activated Protein Kinase 13), also called p38-DELTA or Stress-Activated Protein Kinase 4 (SAPK4), is an enzyme that in humans is encoded by the MAPK13 gene. The protein encoded by this gene is a member of the MAP kinase family. MAP kinases act as an integration point for multiple biochemical signals, and are involved in a wide variety of cellular processes such as proliferation, differentiation, transcription regulation and development. This kinase is closely related to p38 MAP kinase, both of which can be activated by proinflammatory cytokines and cellular stress. MAP kinase kinases 3, and 6 can phosphorylate and activate this kinase. Transcription factor ATF2, and microtubule dynamics regulator stathmin have been shown to be the substrates of this kinase.

Images

Anti-SAPK4 antibody, ABO11248, Western blotting
Lane 1: PANC Cell Lysate
Lane 2: COLO320 Cell Lysate
Lane 3: JURKAT Cell Lysate



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