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MAPK13/14 Antibody (Center)

Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AW5371

Product Information

Application	WB
Primary Accession	O15264
Other Accession	P47812, P70618, P47811, Q16539, Q9DGE2, Q9WTY9, Q9Z1B7, Q3T0N5
Reactivity	Human, Rat
Predicted	Mouse, Zebrafish, Bovine, Xenopus
Host	Rabbit
Clonality	Polyclonal
Calculated MW	42090
Isotype	Rabbit IgG
Antigen Source	HUMAN

Additional Information

Gene ID	5603
Antigen Region	163-194
Other Names	Mitogen-activated protein kinase 13, MAP kinase 13, MAPK 13, Mitogen-activated protein kinase p38 delta, MAP kinase p38 delta, Stress-activated protein kinase 4, MAPK13, PRKM13, SAPK4
Dilution	WB~~1:1000
Target/Specificity	This MAPK13/14 antibody is generated from a rabbit immunized with a KLH conjugated synthetic peptide between 163-194 amino acids from the Central region of human MAPK13/14.
Format	Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein A column, followed by peptide affinity purification.
Storage	Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.
Precautions	MAPK13/14 Antibody (Center) is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	MAPK13

Synonyms	PRKM13, SAPK4
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

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 proinflammatory 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.

References

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Jiang Y.,et al.J. Biol. Chem. 272:30122-30128(1997).
Wang X.S.,et al.J. Biol. Chem. 272:23668-23674(1997).
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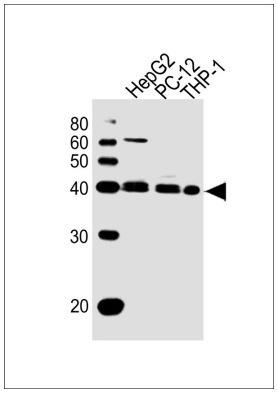
Hu M.C.-T.,et al.J. Biol. Chem. 274:7095-7102(1999).

Images

All lanes : Anti-MAPK13/14 Antibody (Center) at 1/1000 dilution Lane 1: HepG2 whole cell lysates Lane 2: PC-12 whole cell lysates Lane 3: THP-1 whole cell lysates Lysates/proteins at 20 µg per lane. Secondary Goat



Anti-Rabbit IgG, (H+L),Peroxidase conjugated at 1/10000 dilution Predicted band size : 42 kDa Blocking/Dilution buffer: 5% NFDM/TBST.

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.