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MAPK13/SAPK4 Rabbit pAb

Catalog # AP98248

Product Information

Application	IHC-P, IHC-F, IF, E
Primary Accession	O15264
Other Accession	O15264
Predicted	Rat, Human, Mouse, Rabbit, Dog, Sheep
Host	Rabbit
Clonality	Polyclonal
Calculated MW	42090
Physical State	Liquid
Immunogen	KLH conjugated synthetic peptide derived from human MAPK13/SAPK4
Epitope Specificity	286-361/361
Isotype	IgG
Purity	affinity purified by Protein A
Buffer	0.01M TBS (pH7.4) with 1% BSA, 0.02% Proclin300 and 50% Glycerol.
SIMILARITY	Belongs to the protein kinase superfamily. CMGC Ser/Thr protein kinase family. MAP kinase subfamily. Contains 1 protein kinase domain.
SUBUNIT	Interacts with MAPK8IP2.
Post-translational modifications	Dually phosphorylated on Thr-180 and Tyr-182 by MAP2K3/MKK3, MAP2K4/MKK4, MAP2K6/MKK6 and MAP2K7/MKK7, which activates the enzyme. Dephosphorylated by dual specificity phosphatase DUSP1.
Important Note	This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.
Background Descriptions	Responds to activation by environmental stress and pro-inflammatory cytokines by phosphorylating downstream targets. Plays a role in the regulation of protein translation by phosphorylating and inactivating EEF2K. Tissue specificity:Expressed in testes, pancreas, small intestine, lung and kidney. Abundant in macrophages, also present in neutrophils, CD4+ T-cells, and endothelial cells.

Additional Information

Gene ID	5603
Other Names	MAPK 13; MAPK-13; PRKM13; SAPK4; p38delta; Serk4; MK13_HUMAN; MAPK13; MAP kinase 13; Mitogen-activated protein kinase p38 delta (MAP kinase p38 delta); Stress-activated protein kinase 4; 2.7.11.24; MK13_MOUSE; MK13_RAT; mitogen-activated protein kinase 13
Dilution	IHC-P=1:100-500,IHC-F=1:100-500,IF=1:100-500,ELISA=1:5000-10000
Storage	Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. When reconstituted in sterile pH 7.4 0.01M PBS or diluent of antibody the antibody is stable for at least two weeks at 2-4 °C.

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.

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