

Rabbit Anti-MAPK13/SAPK4 antibody

SL7920R

Product Name:	MAPK13/SAPK4
Chinese Name:	丝裂原活化蛋白激酶13抗体
Alias:	MAP kinase 13; MAP kinase p38 delta; MAPK 13; MGC99536; Mitogen activated protein kinase 13; Mitogen activated protein kinase p38 delta; Mitogen-activated protein kinase 13; Mitogen-activated protein kinase p38 delta; MK13_HUMAN; p38 delta; p38delta; PRKM13; Protein kinase mitogen activated 13; SAPK 4; Stress activated protein kinase 4; Stress-activated protein kinase 4.
Organism Species:	Rabbit
Clonality:	Polyclonal
React Species:	Human, Mouse, Rat, Dog, Cow, Rabbit, Sheep,
Applications:	ELISA=1:500-1000IHC-P=1:400-800IHC-F=1:400-800IF=1:100-500 (Paraffin sections need antigen repair) not yet tested in other applications. optimal dilutions/concentrations should be determined by the end user.
Molecular weight:	42kDa
Cellular localization:	The nucleuscytoplasmic
Form:	Lyophilized or Liquid
Concentration:	1mg/ml
immunogen:	KLH conjugated synthetic peptide derived from human MAPK13/SAPK4:286-361/361
Lsotype:	IgG
Purification:	affinity purified by Protein A
Storage Buffer:	0.01M TBS(pH7.4) with 1% BSA, 0.03% Proclin300 and 50% Glycerol.
Storage:	Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. The lyophilized antibody is stable at room temperature for at least one month and for greater than a year when kept at -20 °C. 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.
PubMed:	<u>PubMed</u>
Product Detail:	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.

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 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.

Subunit:

Interacts with MAPK8IP2.

Tissue Specificity:

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

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.

Similarity:

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

Contains 1 protein kinase domain.

SWISS:

O15264

Gene ID:

5603

Database links:

Entrez Gene: 5603Human

Entrez Gene: 26415Mouse

Entrez Gene: 29513Rat

Omim: 602899Human

SwissProt: O15264Human

SwissProt: Q9Z1B7Mouse

SwissProt: Q9WTY9Rat

Unigene: 178695Human

Unigene: 27970 Mouse

Unigene: 207195Rat

Important Note:

This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.