Product Data Sheet
p38 (phospho Thr180/Y182) Rabbit Polyclonal Antibody

Product name:	p38 (phospho Thr180/Y182) Rabbit Polyclonal Antibody
Cat number:	ABN05154
Conjugate:	Unconjugated
Size:	100µL
Clone:	POLY
Concentration:	1mg/ml
Host:	Rabbit
Isotype:	IgG
Immunogen:	The antiserum was produced against synthesized peptide derived from human p38 MAPK around the phosphorylation site of Thr179 and Tyr181. AA range:151-200
Reactivity:	Human,Mouse,Rat,GuineaOther
Applications:	WB 1:500-1:2000,IHC 1:100-1:500,ICC/IF 1:100-1:500,ELISA 1:5000-1:20000,FC 1:50-1:200
Molecular Weight:	38kDa
Purification:	Affinity purification
Form:	liquid
Buffer:	Liquid in PBS containing 50% glycerol, 0.5% protective protein and 0.02% New type preservative N.
Storage:	Store at 4°C short term. Aliquot and store at -20°C long term. Avoid freeze/thaw cycles.
Synonyms:	MAPK14; CSBP; CSBP1; CSBP2; CSPB1; MXI2; SAPK2A; Mitogen-activated protein kinase 14; MAP kinase 14; MAPK 14; Cytokine suppressive anti-inflammatory drug-binding protein; CSAID-binding protein; CSBP; MAP kinase MXI2; MAX-interacting protein
Source:	Rabbit

Background:

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 activated by various environmental stresses and proinflammatory cytokines. The activation requires its phosphorylation by MAP kinase kinases (MKKs), or its autophosphorylation triggered by the interaction of MAP3K7IP1/TAB1 protein with this kinase. The substrates of this kinase include transcription regulator ATF2, MEF2C, and MAX, cell cycle regulator CDC25B, and tumor suppressor p53, which suggest the roles of this kinase in stress related transcription and cell cycle regulation, as well as in genotoxic stress response. Four alternatively spliced transcript variants of this gene encoding dcatalytic activity:ATP + a protein = ADP + a phosphoprotein.,cofactor:Magnesium.,domain:The TXY motif contains the threonine and tyrosine residues whose phosphorylation activates the MAP kinases.,enzyme regulation:Activated by threonine and tyrosine phosphorylation by either of two dual specificity kinases, MAP2K3 or MAP2K6, and potentially also MAP2K4. Inhibited by dual specificity phosphatases, such as DUSP1. Specifically inhibited by the binding of pyridinyl-imidazole compounds, which are cytokine-suppressive anti-inflammatory drugs (CSAID). Isoform Mxi2 is 100-fold less sensitive to these agents than the other isoforms and is not inhibited by DUSP1. Isoform Exip is not activated by MAP2K6.,function:Responds to activation by environmental stress, pro-inflammatory cytokines and lipopolysaccharide (LPS) by phosphorylating a number of transcription factors, such as ELK1 and ATF2 and several downstream kinases, such as MAPKAPK2 and MAPKAPK5. Plays a critical role in the production of some cytokines, for example IL-6. May play a role in stabilization of EPO mRNA during hypoxic stress. Isoform Mxi2 activation is stimulated by mitogens and oxidative stress and only poorly phosphorylates ELK1 and ATF2. Isoform Exip may play a role in the early onset of apoptosis.,online information:P38 mitogen-activated protein kinases entry,PTM:Dually phosphorylated on Thr-180 and Tyr-182, which activates the enzyme.,PTM:Phosphorylated upon DNA damage, probably by ATM or ATR.,similarity:Belongs to the protein kinase superfamily. CMGC Ser/Thr protein kinase family. MAP kinase subfamily.,similarity:Contains 1 protein kinase domain.,subunit:Binds to a kinase interaction motif within the protein tyrosine phosphatase, PTPRR. This interaction retains MAPK14 in the cytoplasm and prevents nuclear accumulation. Interacts with SPAG9 (By similarity). Interacts with NP60 and FAM48A.,tissue specificity:Brain, heart, placenta, pancreas and skeletal muscle. Expressed to a lesser extent in lung, liver and kidney.,

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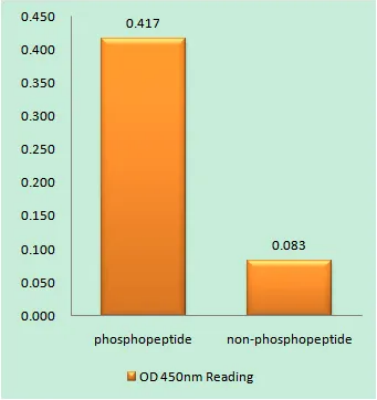
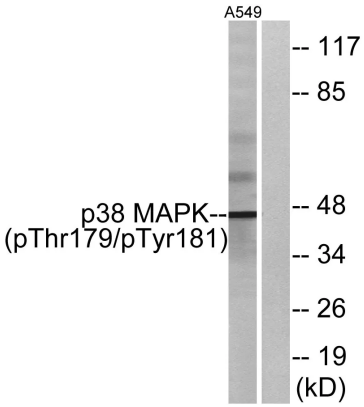
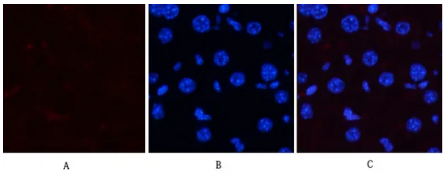


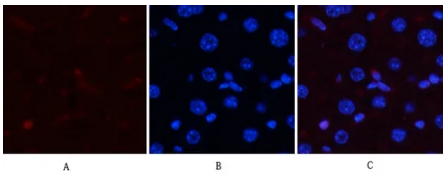
Western blot analysis of lysates from A549 cells treated with etoposide 25uM 24hours, using p38 MAPK Phospho-Thr179+Tyr181 Antibody. The lane on the right is blocked with the phospho peptide.



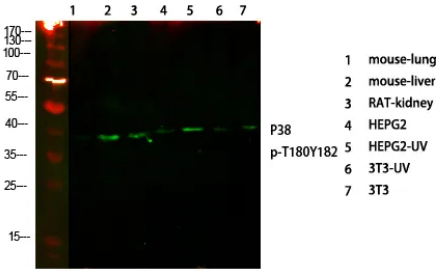
Immunofluorescence analysis of mouse-liver tissue. 1,p38 phospho Thr180/Y182 Polyclonal Antibodyred was diluted at 1:2004°C,overnight. 2, Cy3 labled Secondary antibody was diluted at 1:300room temperature, 50min. 3, Picture B: DAPIblue 10min. Picture A:Target. Picture B: DAPI. Picture C: merge of A+B



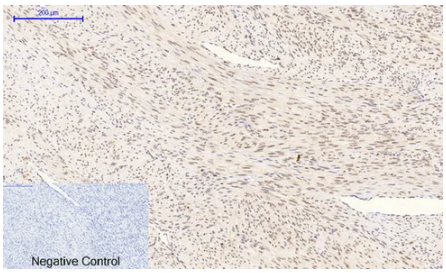
Western Blot analysis of various cells using p38 (phospho Thr180/Y182) Rabbit Polyclonal Antibody diluted at 1:10004°C overnight. Secondary antibodyGoat Anti-rabbit IgG IRDye 800 diluted at 1:5000, 25°C, 1 hour



Immunohistochemical analysis of paraffin-embedded Human-uterus-cancer tissue. 1,p38 phospho Thr180/Y182 Polyclonal Antibody was diluted at 1:200 4°C,overnight . 2, Sodium citrate pH 6.0 was used for antibody retrieval>98°C,20min. 3,Secondary antibody was diluted at 1:200room tempeRature, 30min. Negative control was used by secondary antibody only.



Immunohistochemical analysis of paraffin-embedded Human-colon tissue. 1,p38 phospho Thr180/Y182 Polyclonal Antibody was diluted at 1:2004°C,overnight. 2, Sodium citrate pH 6.0 was used for antibody retrieval>98°C,20min. 3,Secondary antibody was diluted at 1:200room tempeRature, 30min. Negative control was used by secondary antibody only.



Immunohistochemical analysis of paraffin-embedded Human-liver tissue. 1,p38 phospho Thr180/Y182 Polyclonal Antibody was diluted at 1:2004°C,overnight. 2, Sodium citrate pH 6.0 was used for antibody retrieval>98°C,20min. 3,Secondary antibody was diluted at 1:200room tempeRature, 30min. Negative control was used by secondary antibody only.

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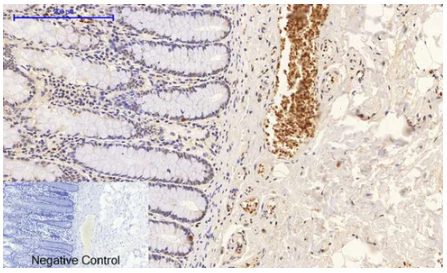
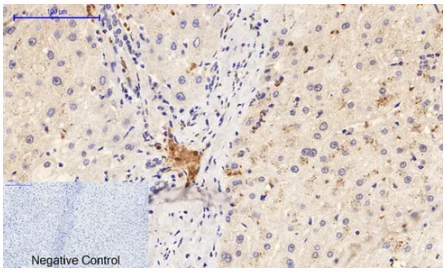
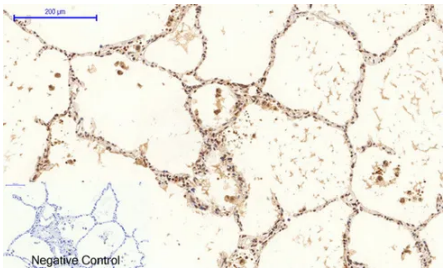


Immunohistochemical analysis of paraffin-embedded Human-lung tissue. 1,p38 phospho Thr180/Y182 Polyclonal Antibody was diluted at 1:2004°C,overnight. 2, Sodium citrate pH 6.0 was used for antibody retrieval>98°C,20min. 3,Secondary antibody was diluted at 1:200room tempeRature, 30min. Negative control was used by secondary antibody only.



Enzyme-Linked Immunosorbent Assay Phospho-ELISA for Immunogen Phosphopeptide Phospho-left and Non-Phosphopeptide Phospho-right, using p38 MAPK Phospho-Thr179+Tyr181 Antibody



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