Data Sheet (Cat.No.TMAB-01102)

Anti-MAPK14 Polyclonal Antibody

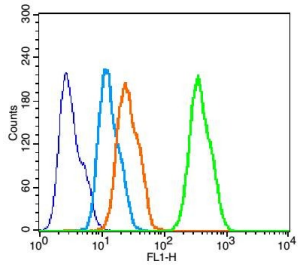
Product Details

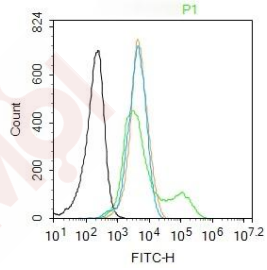
Ig Type:	IgG
Reactivity:	Human,Mouse (predicted:Rat,Dog,Rabbit,Sheep)
Molecular Weight:	Theoretical: 41 kDa.
Purification:	Protein A purified

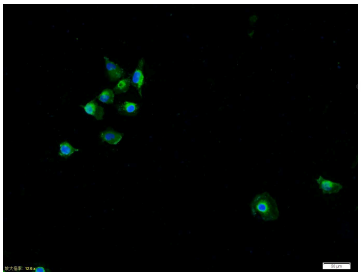
Applications

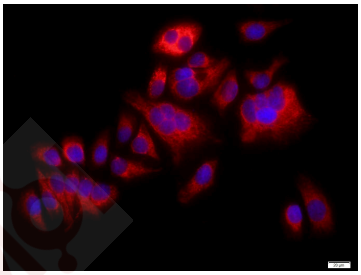
Verified Activity:	1. Blank control: HepG2 (blue). Primary Antibody: Rabbit Anti-P38 MAPK antibody (TMAB-01102,Green); Dilution: 1 μg in 100 μL 1X PBS containing 0.5% BSA; Isotype Control Antibody: Rabbit Igg (orange),used under the same conditions; Secondary Antibody: Goat anti-rabbit IgG-FITC (white blue), Dilution: 1:200 in 1 X PBS containing 0.5% BSA. Protocol The cells were fixed with 2% paraformaldehyde for 10 min at 37°C. Primary antibody (TMAB-01102, 1 μg/1x10^6 cells) were incubated for 30 min at room temperature, followed by 1 X PBS containing 0.5% BSA + 10% goat serum (15 min) to block non-specific protein-protein interactions. Then the Goat Anti-rabbit IgG/FITC antibody was added into the blocking buffer mentioned above to react with the primary antibody at 1/200 dilution for 40 min at room temperature. 2. Blank control: MCF7. Primary Antibody (green line): Rabbit Anti-P38 MAPK antibody (TMAB-01102) Dilution: 2 μg/10^6 cells; Isotype Control Antibody (orange line): Rabbit IgG. Secondary Antibody: Goat anti-rabbit IgG-FITC Dilution: 1 μg/test. Protocol The cells were fixed with 4% PFA (10 min at room temperature) and then permeabilized with 90% ice-cold methanol for 20 min at-20°C. The cells were then incubated in 5% BSA to block non-specific protein-protein interactions for 30 min at room temperature. Cells stained with Primary Antibody for 30 min at room temperature. The secondary antibody used for 40 min at room temperature. 3. Tissue/cell: HUVEC cell; 4% Paraformaldehyde-fixed; Triton X-100 at room temperature for 20 min; Blocking buffer (normal goat serum) at 37°C for 20 min; Antibody incubation with (P38 MAPK) polyclonal Antibody, Unconjugated (TMAB-01102) 1:100, 90 minutes at 37°C; followed by a FITC conjugated Goat Anti-Rabbit IgG antibody at 37°C for 90 minutes, DAPI (blue) was used to stain the cell nucleus. 4. Tissue/cell: MCF7 cell; 4% Paraformaldehyde-fixed; Triton X-100 at room temperature for 20 min; Blocking buffer (normal goat serum) at 37°C for 20 min; Antibody incubation with (P38 MAPK) polyclonal Antibody, Unconjugated (TMAB-01102) 1:100, 90 minutes at 37°C; followed by a FITC conjugated Goat Anti-Rabbit IgG antibody at 37°C for 90 minutes, DAPI (blue) was used to stain the cell nucleus. 5. Blank control: Raw264.7. Primary Antibody (green line): Rabbit Anti-P38 MAPK antibody (TMAB-01102) Dilution: 2 μg/10^6 cells; Isotype Control Antibody (orange line): Rabbit IgG. Secondary Antibody: Goat anti-rabbit IgG-AF488

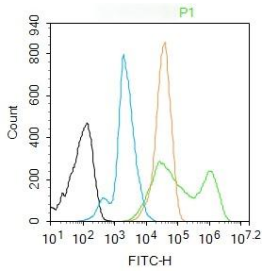
Dilution: 1 μg/test.
Protocol
The cells were fixed with 4% PFA (10 min at room temperature) and then permeabilized with 90% ice-cold methanol for 20 min at-20°C. The cells were then incubated in 5% BSA to block non-specific protein-protein interactions for 30 min at room temperature. Cells stained with Primary Antibody for 30 min at room temperature. The secondary antibody used for 40 min at room temperature.
6. The Hela (H) （UV stimulated) cells were fixed with 4% PFA (10 min at room temperature) and then permeabilized with 90% ice-cold methanol for 20 min at-20°C,the cells then were incubated in 5% BSA to block non-specific protein-protein interactions (30 min at room temperature). Primary Antibody (green): Rabbit Anti-P38 MAPK/MAPK14 antibody (TMAB-01102): 1 μg/10^6 cells; Secondary Antibody (white blue): Goat anti-Rabbit IgG-FITC: 1 μg/test. Isotype Control (orange): Rabbit IgG. Blank control (black): PBS.
7. 4% Paraformaldehyde-fixed Hela (H) （UV stimulated) cell; Triton X-100 at RT for 20 min; Antibody incubation with (P38 MAPK/MAPK14) polyclonal Antibody, unconjugated (TMAB-01102) 1:100, 90 min at 37°C; followed by conjugated Goat Anti-Rabbit IgG antibody (green) at 37°C for 90 min, DAPI (blue) was used to stain the cell nucleus. PBS instead of the primary antibody was used as the blank control.

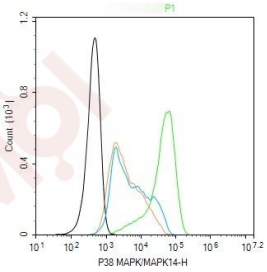


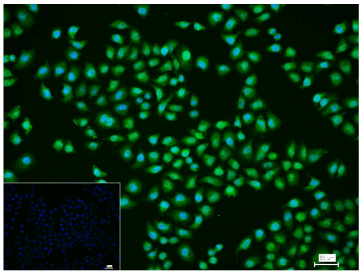












Application:	FCM,ICC/IF
Recommended	FCM=1 μg/Test; ICC/IF=1:50-200

Properties

Stability & Storage:	Store at -20°C or -80°C for 12 months. Avoid repeated freeze-thaw cycles.
Shipping:	Shipping with blue ice.

Antigen Details

Immunogen:	KLH conjugated synthetic peptide: human P38MAPK
Antigen Species:	Human
Gene ID:	1432
Uniprot ID:	Q16539
Synonyms:	Stress-activated protein kinase 2a;MAP kinase MXI2;MAP kinase 14;P38 MAPK;CSAID-binding protein;SAPK2A;MAPK 14;Mitogen-activated protein kinase p38 alpha;MAX-interacting protein 2;EC 2.7.11.24;CSBP2;MAP kinase p38 alpha;Cytokine suppressive anti-inflammatory drug-binding protein;MXI2;CSBP;Mitogen-activated protein kinase 14;CSBP1
Biology Area:	MAPK pathway,TLR Signaling,Other Cell Signaling Kits,MAPK Pathway

Research 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 distinct isoforms have been reported.

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