

**Product Name:** KD-Validated p38 MAPK Recombinant Rabbit Monoclonal Antibody  
**Catalog #:** KVA01221

For research use only.

## Summary

|                     |                                                                             |
|---------------------|-----------------------------------------------------------------------------|
| <b>Description</b>  | KO&KD-Validated antibody                                                    |
| <b>Host</b>         | Rabbit                                                                      |
| <b>Application</b>  | WB,FCM,ICC                                                                  |
| <b>Reactivity</b>   | Human,Mouse,Rat                                                             |
| <b>Conjugation</b>  | Unconjugated                                                                |
| <b>Modification</b> | Unmodified                                                                  |
| <b>Isotype</b>      | Rabbit IgG                                                                  |
| <b>Clonality</b>    | Rabbit mAb                                                                  |
| <b>Form</b>         | Liquid                                                                      |
| <b>Storage</b>      | Aliquot and store at -20°C (valid for 12 months). Avoid freeze/thaw cycles. |
| <b>Shipping</b>     | Ice bags                                                                    |
| <b>Buffer</b>       | Supplied in PBS (pH 7.4) containing 50% glycerol, and 0.02% sodium azide.   |
| <b>Purification</b> | Affinity purification                                                       |

## Application

|                         |                                                         |
|-------------------------|---------------------------------------------------------|
| <b>Dilution Ratio</b>   | WB 1:1,000-1:5,000; FC 1:200-1:2,000; ICC 1:100-1:1,000 |
| <b>Molecular Weight</b> | Calculated MW: 41.3kDa                                  |

## Antigen Information

|                          |                                                                                                                                                                                                                                                                                                                                                     |
|--------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Gene Name</b>         | MAPK14<br>MAPK14; Mitogen-Activated Protein Kinase 14; PRKM14; PRKM15; CSBP1; CSBP2; CSPB1; P38; Mitogen-Activated Protein Kinase P38 Alpha; MAX-Interacting Protein; CSAID-Binding Protein; MAP Kinase P38 Alpha; P38 MAP Kinase; MAP Kinase 14; EC 2.7.11.24; SAPK2A; Mxi2;                                                                       |
| <b>Alternative Names</b> | CSBP; MXI2; Cytokine Suppressive Anti-Inflammatory Drug Binding Protein; Cytokine Suppressive Anti-Inflammatory Drug-Binding Protein; P38 Mitogen Activated Protein Kinase; Stress-Activated Protein Kinase 2A; Stress-Activated Protein Kinase 2a; MAP Kinase Mxi2; MAP Kinase MXI2; P38alpha Exip; EC 2.7.11; P38ALPHA; MAPK 14; SAPK2a; EXIP; RK |
| <b>Gene ID</b>           | 1432.0                                                                                                                                                                                                                                                                                                                                              |
| <b>SwissProt ID</b>      | Q16539                                                                                                                                                                                                                                                                                                                                              |
| <b>Immunogen</b>         | A synthesized peptide derived from human p38 MAPK                                                                                                                                                                                                                                                                                                   |

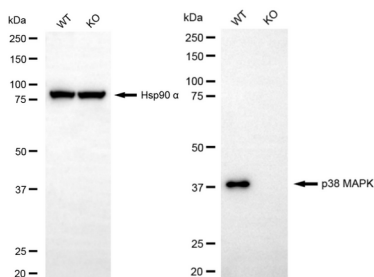
## Background

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. [provided by RefSeq, Jul 2008]

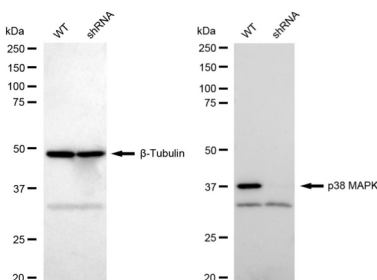
## Research Area

Signal Transduction,Cancer,Immunology,Kits/ Lysates/ Other

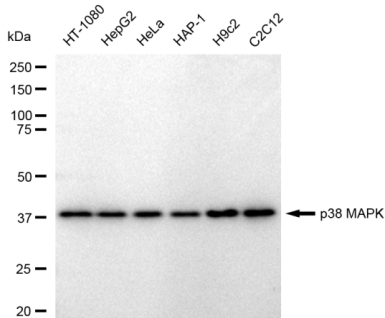
## Image Data



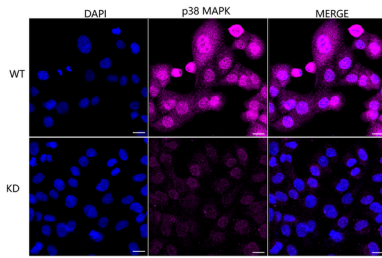
Western blotting analysis using p38 MAPK antibody (KVAb01221). p38 MAPK expression in wild-type (WT) and MAPK14 knockout (KO) HeLa cells with 20 µg of total cell lysates. Hsp90 α serves as a loading control. The blot was incubated with p38 MAPK antibody (KVAb01221, 1:5,000) and HRP-conjugated goat anti-rabbit secondary antibody (APS0635, 1:10,000) respectively.



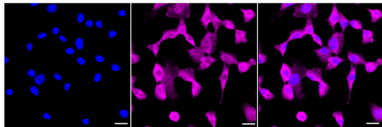
Western blotting analysis using p38 MAPK antibody (KVAb01221). p38 MAPK expression in wild type (WT) and p38 MAPK shRNA knockdown (KD) HT-1080 cells with 30 µg of total cell lysates. β-Tubulin serves as a loading control. The blot was incubated with p38 MAPK antibody (KVAb01221, 1:5,000) and HRP-conjugated goat anti-rabbit secondary antibody (APS0635, 1:10,000) respectively.



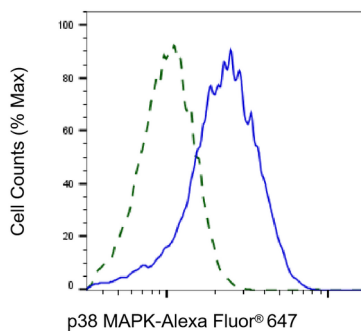
Western blotting analysis using p38 MAPK antibody (KVAb01221). Total cell lysates (30 µg) from various cell lines were loaded and separated by SDS-PAGE. The blot was incubated with p38 MAPK antibody (KVAb01221, 1:5,000) and HRP-conjugated goat anti-rabbit secondary antibody (APS0635, 1:10,000) respectively.



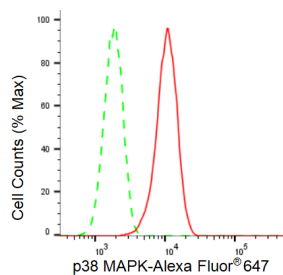
Immunocytochemical staining of HT1080 cells using p38 MAPK antibody (KVA01221, 1:1,000), Top panel: wild-type (WT); Bottom panel: p38 MAPK shRNA knockdown (KD). Nuclei were stained blue with DAPI; p38 MAPK was stained magenta with Alexa Fluor® 647. Scale bar, 20 μm.



Immunocytochemical staining of C2C12 cells with p38 MAPK antibody (KVA01221, 1:1,000). Nuclei were stained blue with DAPI; p38 MAPK was stained magenta with Alexa Fluor® 647. Images were taken using Leica stellaris 5. Protein abundance based on laser Intensity and smart gain: Medium. Scale bar: 20 μm.



Validation of p38 MAPK knockdown using flow cytometry. Wild-type(WT, Blue) and knockdown(KD, Green) HT-1080 cells were stained with p38 MAPK antibody (KVA01221, 1:2,000) and analyzed using BD flow cytometer.



Flow cytometric analysis of p38 MAPK expression in C2C12 cells using p38 MAPK antibody (KVA01221, 1:2,000). Green, isotype control; red, p38 MAPK.