Anti-Phospho-p38 (T180 + Y182) Antibody

ER1903-01

Product Type:	Rabbit polyclonal IgG, primary antibodies
Species reactivity:	Human, Mouse, Rat
Applications:	WB, IHC-P, IF-Tissue, FC
Molecular Wt:	42 kDa

Description: 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.

Immunogen: KLH conjugated Synthesised phosphopeptide derived from human p38 MAPK around the phosphorylation site of Thr180/Tyr182: M(p-T)G(p-Y)VA.

Positive control: Mouse muscle tissue, rat muscle tissue, rat brain tissue, mouse brain tissue, human placenta tissue, HepG2.

Subcellular location: Cytoplasm. Nucleus.

Database links: SwissProt: Q16539 Human | P47811 Mouse | P70618 Rat

Recommended Dilutions:

WB	1:500-2000
IHC-P	1:100-500
IF-tissue	1:100-500
FC	1μg/Test

Storage Buffer: 0.01M TBS(pH7.4) with 1% BSA, 0.03% Proclin300 and 50% Glycerol.

Storage Instruction: Store at -20℃. Avoid repeated freeze/thaw cycles.

Purity: Protein A affinity purified.

Images

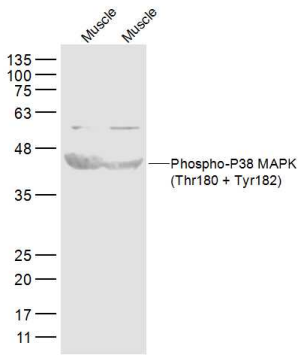

Fig1: Sample:
Muscle (Mouse) Lysate at 40 ug
Muscle (Rat) Lysate at 40 ug
Primary: Anti-Phospho-P38 MAPK (Thr180 + Tyr182) (ER1903-01) at 1/300 dilution
Secondary: IRDye800CW Goat Anti-Rabbit IgG at 1/20000 dilution
Predicted band size: 42 kD
Observed band size: 42 kD

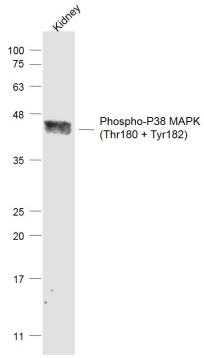

Fig2: Sample:
Kidney (Mouse) Lysate at 40 ug
Primary: Anti-Phospho-P38 MAPK (Thr180 + Tyr182) (ER1903-01) at 1/1000 dilution
Secondary: IRDye800CW Goat Anti-Rabbit IgG at 1/20000 dilution
Predicted band size: 42 kD
Observed band size: 42 kD

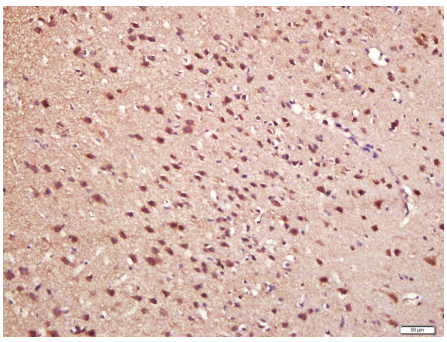

Fig3: Tissue/cell: rat brain tissue; 4% Paraformaldehyde-fixed and paraffin-embedded;
Antigen retrieval: citrate buffer (0.01M, pH 6.0), Boiling bathing for 15min; Block endogenous peroxidase by 3% Hydrogen peroxide for 30min; Blocking buffer (normal goat serum,C-0005) at 37℃ for 20 min;
Incubation: Anti-P38 MAPK(Phospho-Thr180/Tyr182) Polyclonal Antibody, Unconjugated (ER1903-01) 1:200, overnight at 4°C, followed by conjugation to the secondary antibody(SP-0023) and DAB(C-0010) staining

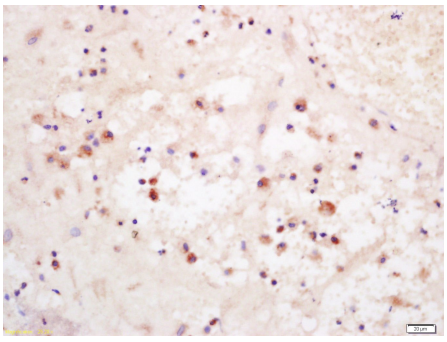

Fig4: Tissue/cell: human placenta tissue; 4% Paraformaldehyde-fixed and paraffin-embedded;
Antigen retrieval: citrate buffer (0.01M, pH 6.0), Boiling bathing for 15min; Block endogenous peroxidase by 3% Hydrogen peroxide for 30min; Blocking buffer (normal goat serum,C-0005) at 37℃ for 20 min;
Incubation: Anti-P38 MAPK(Phospho-Thr180/Tyr182) Polyclonal Antibody, Unconjugated (ER1903-01) 1:200, overnight at 4°C, followed by conjugation to the secondary antibody(SP-0023) and DAB(C-0010) staining

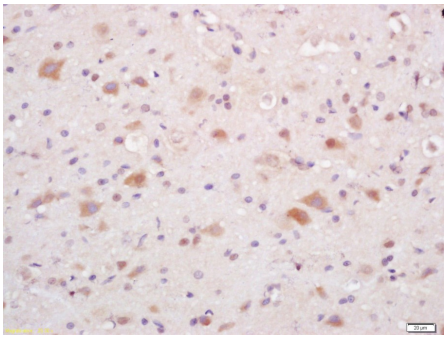

Fig5: Tissue/cell: mouse brain tissue; 4% Paraformaldehyde-fixed and paraffin-embedded;
Antigen retrieval: citrate buffer (0.01M, pH 6.0), Boiling bathing for 15min; Block endogenous peroxidase by 3% Hydrogen peroxide for 30min; Blocking buffer (normal goat serum,C-0005) at 37℃ for 20 min;
Incubation: Anti-P38 MAPK(Phospho-Thr180/Tyr182) Polyclonal Antibody, Unconjugated (ER1903-01) 1:200, overnight at 4°C, followed by conjugation to the secondary antibody(SP-0023) and DAB(C-0010) staining

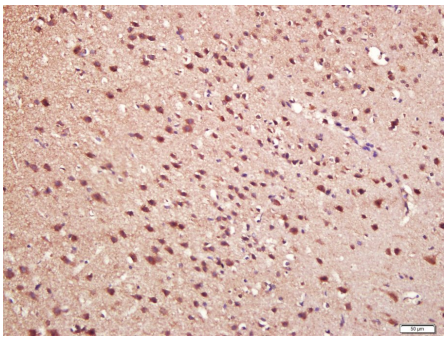

Fig6: Paraformaldehyde-fixed, paraffin embedded (rat brain tissue); Antigen retrieval by boiling in sodium citrate buffer (pH6.0) for 15min; Block endogenous peroxidase by 3% hydrogen peroxide for 20 minutes; Blocking buffer (normal goat serum) at 37°C for 30min; Antibody incubation with (P-P38 MAPK) Polyclonal Antibody, Unconjugated (ER1903-01) at 1:400 overnight at 4°C, followed by a conjugated secondary (sp-0023) for 20 minutes and DAB staining.

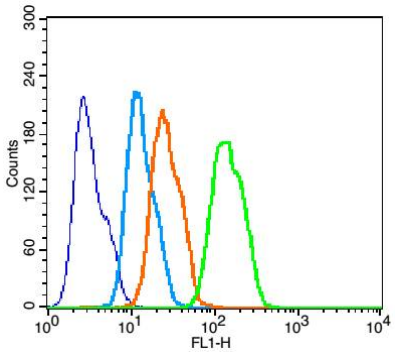

Fig7: Blank control: HepG2(blue). Primary Antibody:Rabbit Anti-Phospho-P38 MAPK (Thr180 + Tyr182)antibody (ER1903-01,Green); Dilution: 1μg in 100 μL 1X PBS containing 0.5% BSA; Isotype Control Antibody: Rabbit IgG(orange) ,used under the same conditions; Secondary Antibody: Goat anti-rabbit IgG-FITC(white 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℃. Primary antibody (ER1903-01, 1μg /1x10^6 cells) were incubated for 30 min at room temperature, followed by 1 X PBS containing 0.5% BSA + 1 0% 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. Acquisition of 20,000 events was performed.

Background References

1. Rosenzweig DH et al. Mechanical injury of bovine cartilage explants induces depth-dependent, transient changes in MAP kinase activity associated with apoptosis. Osteoarthritis Cartilage 20(12):1591-602 (2012).