# Anti-Phospho-p38 (T180) Antibody [JE77-37]

# HA722150

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|---|---|
| **Product Type:** | Recombinant Rabbit monoclonal IgG, primary antibodies |
| **Species reactivity:** | Human, Mouse, Rat |
| **Applications:** | WB, IF-Cell, IHC-P |
| **Molecular Wt:** | Predicted band size: 41 kDa |
| **Clone number:** | JE77-37 |

**Description:** p38 mitogen-activated protein kinases are a class of mitogen-activated protein kinases (MAPKs) that are responsive to stress stimuli, such as cytokines, ultraviolet irradiation, heat shock, and osmotic shock, and are involved in cell differentiation, apoptosis and autophagy. Persistent activation of the p38 MAPK pathway in muscle satellite cells (muscle stem cells) due to ageing, impairs muscle regeneration. p38 MAP Kinase (MAPK), also called RK or CSBP (Cytokinin Specific Binding Protein), is the mammalian orthologue of the yeast Hog1p MAP kinase, which participates in a signaling cascade controlling cellular responses to cytokines and stress.

**Immunogen:** Synthetic phosphopeptide corresponding to residues surrounding Thr180 of human p38 MAPK.

**Positive control:** Jurkat cell lysate, Jurkat treated with UV for 1 hour cell lysate, PC-12 cell lysate, PC-12 treated with UV for 1 hour cell lysate, Jurkat cells treated with UV for 1 hour, human breast cancer tissue, mouse colon tissue, rat colon tissue.

**Subcellular location:** Cytoplasm, Nucleus.

**Database links:** SwissProt: Q16539 Human

**Recommended Dilutions:**

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| **WB** | 1:1,000 |
| **IF-Cell** | 1:100 |
| **IHC-P** | 1:200-1:1,000 |

**Storage Buffer:** 1*TBS (pH7.4), 0.05% BSA, 40% Glycerol. Preservative: 0.05% Sodium Azide.

**Storage Instruction:** Store at +4℃ after thawing. Aliquot store at -20℃. Avoid repeated freeze / thaw cycles.

**Purity:** Protein A affinity purified.

## Images

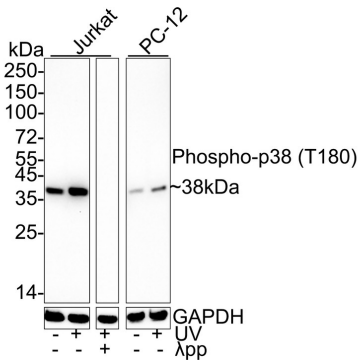


**Fig1:** Western blot analysis of Phospho-p38 (T180) on different lysates with Rabbit anti-Phospho-p38 (T180) antibody (HA722150) at 1/1,000 dilution.

Lane 1: Jurkat cell lysate
Lane 2: Jurkat treated with UV for 1 hour cell lysate
Lane 3: Jurkat treated with UV for 1 hour cell lysate, then the membrane treated with λpp for 1 hour
Lane 4: PC-12 cell lysate
Lane 5: PC-12 treated with UV for 1 hour cell lysate

Lysates/proteins at 20 µg/Lane.

Predicted band size: 41 kDa
Observed band size: 38 kDa

Exposure time: 2 minutes; ECL: K1801;

4-20% SDS-PAGE gel.

Proteins were transferred to a PVDF membrane and blocked with 5% NFDM/TBST for 1 hour at room temperature. The primary antibody (HA722150) at 1/1,000 dilution was used in 5% NFDM/TBST at 4℃ overnight. Goat Anti-Rabbit IgG - HRP Secondary Antibody (HA1001) at 1/50,000 dilution was used for 1 hour at room temperature.

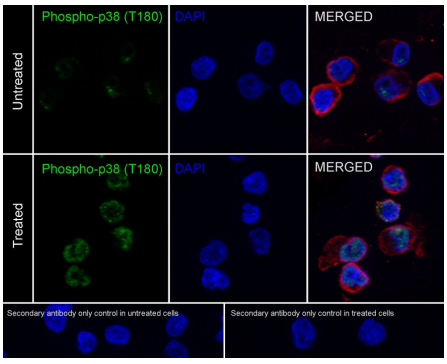


**Fig2:** Immunocytochemistry analysis of Jurkat cells treated with or without UV for 1 hour labeling Phospho-p38 (T180) with Rabbit anti-Phospho-p38 (T180) antibody (HA722150) at 1/100 dilution.

Cells were fixed in 4% paraformaldehyde for 20 minutes at room temperature, permeabilized with 0.1% Triton X-100 in PBS for 5 minutes at room temperature, then blocked with 1% BSA in 10% negative goat serum for 1 hour at room temperature. Cells were then incubated with Rabbit anti-Phospho-p38 (T180) antibody (HA722150) at 1/100 dilution in 1% BSA in PBST overnight at 4 ℃. Goat Anti-Rabbit IgG H&L (iFluor™ 488, HA1121) was used as the secondary antibody at 1/1,000 dilution. PBS instead of the primary antibody was used as the secondary antibody only control. Nuclear DNA was labelled in blue with DAPI.

Beta tubulin (M1305-2, red) was stained at 1/100 dilution overnight at +4℃. Goat Anti-Mouse IgG H&L (iFluor™ 594, HA1126) was used as the secondary antibody at 1/1,000 dilution.

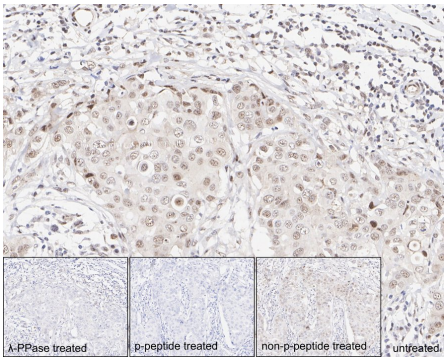


**Fig3:** Immunohistochemical analysis of paraffin-embedded human breast cancer tissue untreated / treated with λpp / phospho-peptide / non-phospho-peptide with Rabbit anti-Phospho-p38 (T180) antibody (HA722150) at 1/200 dilution.

The section was pre-treated using heat mediated antigen retrieval with sodium citrate buffer (pH 6.0) for 2 minutes. The tissues were blocked in 1% BSA for 20 minutes at room temperature, washed with $ddH_2O$ and PBS, and then probed with the primary antibody (HA722150) at 1/200 dilution for 1 hour at room temperature. The detection was performed using an HRP conjugated compact polymer system. DAB was used as the chromogen. Tissues were counterstained with hematoxylin and mounted with DPX.

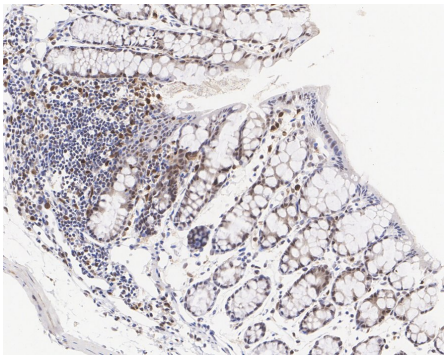

**Fig4:** Immunohistochemical analysis of paraffin-embedded mouse colon tissue with Rabbit anti-Phospho-p38 (T180) antibody (HA722150) at 1/1,000 dilution.

The section was pre-treated using heat mediated antigen retrieval with sodium citrate buffer (pH 6.0) for 2 minutes. The tissues were blocked in 1% BSA for 20 minutes at room temperature, washed with $ddH_2O$ and PBS, and then probed with the primary antibody (HA722150) at 1/1,000 dilution for 1 hour at room temperature. The detection was performed using an HRP conjugated compact polymer system. DAB was used as the chromogen. Tissues were counterstained with hematoxylin and mounted with DPX.

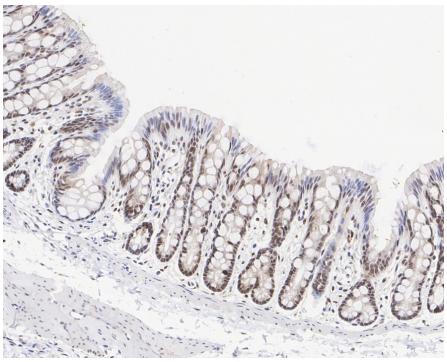

**Fig5:** Immunohistochemical analysis of paraffin-embedded rat colon tissue with Rabbit anti-Phospho-p38 (T180) antibody (HA722150) at 1/1,000 dilution.

The section was pre-treated using heat mediated antigen retrieval with sodium citrate buffer (pH 6.0) for 2 minutes. The tissues were blocked in 1% BSA for 20 minutes at room temperature, washed with $ddH_2O$ and PBS, and then probed with the primary antibody (HA722150) at 1/1,000 dilution for 1 hour at room temperature. The detection was performed using an HRP conjugated compact polymer system. DAB was used as the chromogen. Tissues were counterstained with hematoxylin and mounted with DPX.

## Background References

1. Martínez-Limón A et al. The p38 Pathway: From Biology to Cancer Therapy. Int J Mol Sci. 2020 Mar
2. Falcicchia C et al. Involvement of p38 MAPK in Synaptic Function and Dysfunction. Int J Mol Sci. 2020 Aug