abcam

Product datasheet

Anti-p38 delta/MAPK13 + p38 alpha/MAPK14 antibody [M138] ab31828

KO VALIDATED

16 Abreviews 164 References 9 Images

Overview

Product name	Anti-p38 delta/MAPK13 + p38 alpha/MAPK14 antibody [M138]
Description	Mouse monoclonal [M138] to p38 delta/MAPK13 + p38 alpha/MAPK14
Host species	Mouse
Tested applications	**Suitable for:** IHC-P, WB, ICC/IF, Flow Cyt (Intra), ELISA
Species reactivity	**Reacts with:** Mouse, Rat, Cow, Dog, Human, African green monkey, Syrian hamster
Immunogen	Recombinant fragment corresponding to Rat p38 alpha/MAPK14 (C terminal). Identical to human and mouse.
Epitope	ab31828 recognises an epitope located in the C terminal region of p38.
Positive control	A431 cells, Jurkat cells, HeLa cells. IHC: Human esophagus (FFPE) Flow Cyt (intra): A431 cells
General notes	The Life Science industry has been in the grips of a reproducibility crisis for a number of years. Abcam is leading the way in addressing this with our range of recombinant monoclonal antibodies and knockout edited cell lines for gold-standard validation. Please check that this product meets your needs before purchasing. If you have any questions, special requirements or concerns, please send us an inquiry and/or contact our Support team ahead of purchase. Recommended alternatives for this product can be found below, along with publications, customer reviews and Q&As

Properties

Form	Liquid
Storage instructions	Shipped at 4°C. Store at +4°C short term (1-2 weeks). Upon delivery aliquot. Store at -20°C. Avoid freeze / thaw cycle.
Storage buffer	Preservative: 0.05% Sodium azide Constituents: 49% PBS, 50% Glycerol, 0.1% BSA
Purity	Protein A purified
Purification notes	Purified with protein A affinity chromatography.
Clonality	Monoclonal

Clone number	M138
Isotype	IgG1

Applications

The Abpromise guarantee Our **Abpromise guarantee** covers the use of ab31828 in the following tested applications.

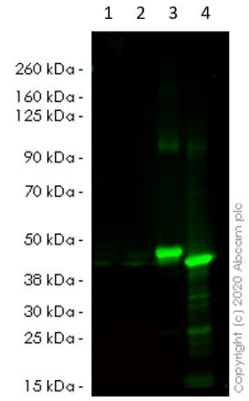
The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Application	Abreviews	Notes
IHC-P		1/20 - 1/200. Perform heat mediated antigen retrieval with citrate buffer pH 6 before commencing with IHC staining protocol.
WB	★★★★★ **(14)**	1/1000. Predicted molecular weight: 41 kDa.
ICC/IF	★★★☆☆ **(2)**	1/200.
Flow Cyt (Intra)		1/1000. **ab170190** - Mouse monoclonal IgG1, is suitable for use as an isotype control with this antibody.
ELISA		Use at an assay dependent concentration. Peptide ELISA only.

Target

Cellular localization p38 alpha/MAPK14: Cytoplasm. Nucleus.

Images

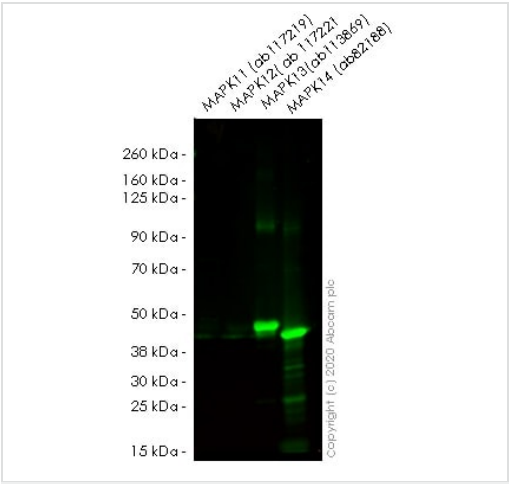


Western blot - Anti-p38 delta/MAPK13 + p38 alpha/MAPK14 antibody [M138] (ab31828)

All lanes : Anti-p38 delta/MAPK13 + p38 alpha/MAPK14 antibody [M138] (ab31828) at 1/1000 dilution

Lane 1 : Recombinant Human p38 beta/MAPK11 protein (**ab117219**)
Lane 2 : Recombinant Human p38 gamma/MAPK12 protein (**ab117221**)
Lane 3 : Recombinant Human p38 delta/MAPK13 protein (**ab113869**)
Lane 4 : Recombinant Human p38 alpha/MAPK14 protein (**ab82188**)

Predicted band size: 41 kDa



Western blot - Anti-p38 delta/MAPK13 + p38 alpha/MAPK14 antibody [M138] (ab31828)

All lanes : Anti-p38 delta/MAPK13 + p38 alpha/MAPK14 antibody [M138] (ab31828) at 1/1000 dilution

Lane 1 : MAPK11 recombinant (**ab117219**)
Lane 2 : MAPK12 recombinant(ab 117221)
Lane 3 : MAPK13 recombinant (**ab113869**)
Lane 4 : MAPK14 (p38) recombinant (**ab82188**)

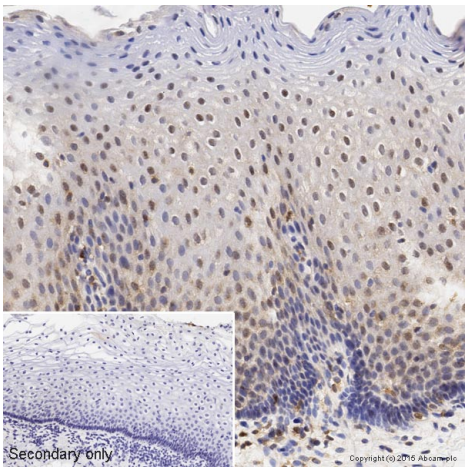
Lysates/proteins at 0.5 µg per lane.

Performed under reducing conditions.

Predicted band size: 41 kDa
Observed band size: 43 kDa

Lanes 1 - 4: Green - ab31828 observed at 43 kDa.

ab31828 was shown to react with Anti-p38 antibody [M138] in Western blot. Membranes were blocked in 100% Licor before incubation with ab31828 and overnight at 4 °C at a 1 in 1000 dilution. Blots were incubated with Goat anti-Mouse IgG H&L (IRDye® 800CW) preabsorbed (**ab216772**) secondary antibody at 1 in 20000 dilution for 1 h at room temperature before imaging.

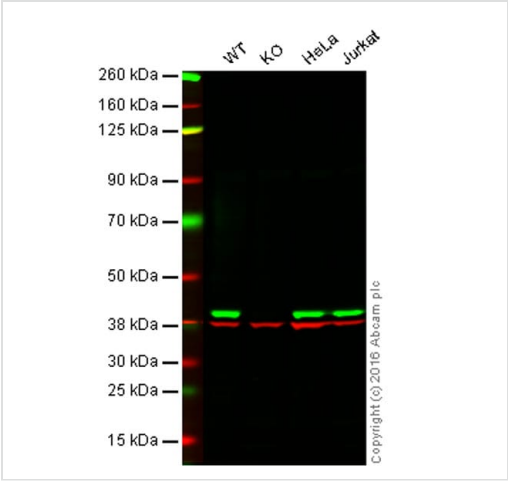


Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-p38 delta/MAPK13 + p38 alpha/MAPK14 antibody [M138] (ab31828)

IHC image of ab31828 staining p38 in normal human esophagus formalin-fixed paraffin-embedded tissue sections*, performed on a Leica Bond. The section was pre-treated using heat mediated antigen retrieval with sodium citrate buffer (pH6, epitope retrieval solution 1) for 20 mins. The section was then incubated with ab31828, 1/50 dilution, for 15 mins at room temperature and detected using an HRP conjugated compact polymer system. DAB was used as the chromogen. The section was then counterstained with haematoxylin and mounted with DPX. No primary antibody was used in the negative control (shown on the inset).

For other IHC staining systems (automated and non-automated) customers should optimize variable parameters such as antigen retrieval conditions, primary antibody concentration and antibody incubation times.

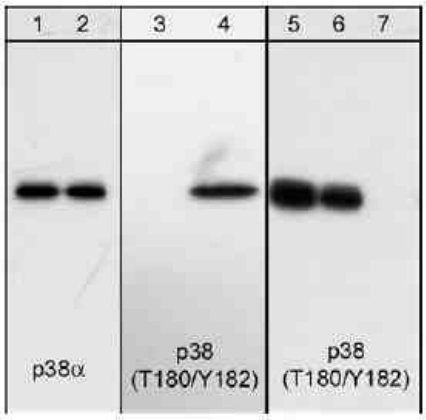
*Tissue obtained from the Human Research Tissue Bank, supported by the NIHR Cambridge Biomedical Research Centre



Western blot - Anti-p38 delta/MAPK13 + p38 alpha/MAPK14 antibody [M138] (ab31828)

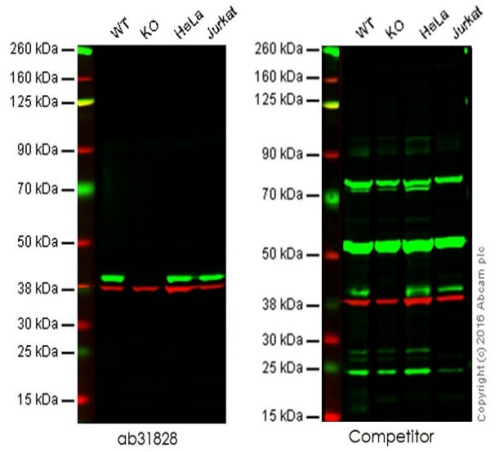
Lane 1: Wild-type HAP1 cell lysate (20 µg)
Lane 2: p38 knockout HAP1 cell lysate (20 µg)
Lane 3: HeLa cell lysate (20 µg)
Lane 4: Jurkat cell lysate (20 µg)
Lanes 1 - 4: Merged signal (red and green). Green - ab31828 observed at 40 kDa. Red - loading control, **ab181602**, observed at 37 kDa.

ab31828 was shown to specifically react with p38 when p38 knockout samples were used. Wild-type and p38 knockout samples were subjected to SDS-PAGE. ab31828 and **ab181602** (loading control to GAPDH) were diluted 1/1000 and 1/2000 respectively and incubated overnight at 4°C. Blots were developed with Goat anti-Mouse IgG H&L (IRDye® 800CW) preadsorbed (**ab216772**) and Goat Anti-Rabbit IgG H&L (IRDye® 680RD) preadsorbed (**ab216777**) secondary antibodies at 1/10,000 dilution for 1 h at room temperature before imaging.



Western blot - Anti-p38 delta/MAPK13 + p38 alpha/MAPK14 antibody [M138] (ab31828)

Western blot analysis of A431 cells serum starved overnight (lanes 1 & 3) or treated with pervanadate (1 mM) for 30 minutes (lanes 2 & 4). The blot was probed with anti-p38alpha (lanes 1 & 2) or anti-p38 (T180/Y182) (lanes 3-4). Lanes 5-7 shows a blot of A431 cells treated with pervanadate and probed with anti-p38 (T180/Y182) in the presence of no peptide (lane 5), phospho-ERK1 (T202/Y204) peptide (lane 6) or phoshpo-p38 (T180/Y182) peptide (lane 7).

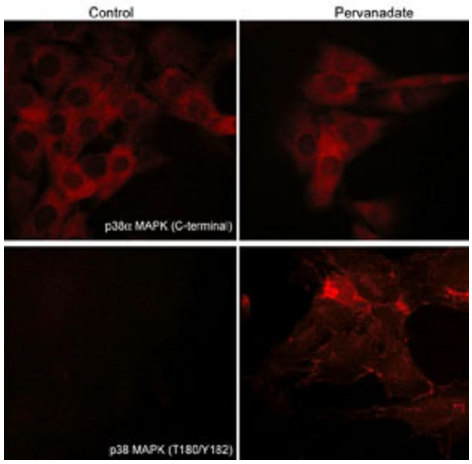


Western blot - Anti-p38 delta/MAPK13 + p38 alpha/MAPK14 antibody [M138] (ab31828)

Lane 1: Wild-type HAP1 cell lysate (20 µg)
Lane 2: p38 knockout HAP1 cell lysate (20 µg)
Lane 3: HeLa cell lysate (20 µg)
Lane 4: Jurkat cell lysate (20 µg)

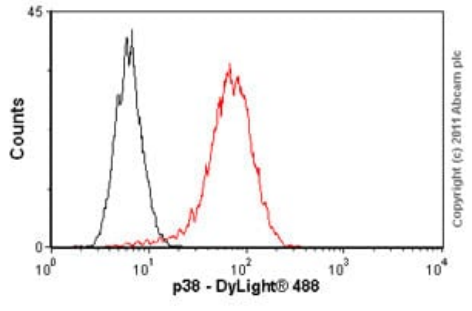
Lanes 1 - 4: Merged signal (red and green). Green - ab31828 observed at 40 kDa. Red - loading control, **ab8245**, observed at 37 kDa.

This western blot image is a comparison between ab31828 and a competitor's top cited rabbit polyclonal antibody.



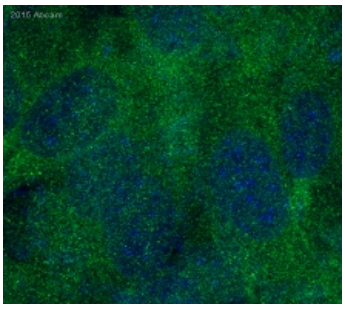
Immunocytochemistry/ Immunofluorescence - Anti-p38 delta/MAPK13 + p38 alpha/MAPK14 antibody [M138] (ab31828)

Immunocytochemical labeling of activated p38 MAPK in pervanadate-treated mouse with **ab31828**. The cells were labeled with mouse monoclonal p38α MAPK and p38 MAPK antibodies, then the antibodies were detected using appropriate secondary antibodies conjugated to Cy3.



Flow Cytometry (Intracellular) - Anti-p38 delta/MAPK13 + p38 alpha/MAPK14 antibody [M138] (ab31828)

Overlay histogram showing A431 cells stained with ab31828 (red line). The cells were fixed with methanol (5 min) and then permeabilized with 0.1% PBS-Tween for 20 min. The cells were then incubated in 1x PBS / 10% normal goat serum / 0.3M glycine to block non-specific protein-protein interactions followed by the antibody (**ab21828**, 1:100 dilution) for 30 min at 22°C. The secondary antibody used was DyLight® 488 goat anti-mouse IgG (H+L) (**ab96879**) at 1:500 dilution for 30 min at 22°C. Isotype control antibody (black line) was mouse IgG1 [ICIGG1] (**ab91353**, 2µg/1x10^6 cells) used under the same conditions. Acquisition of >5,000 events was performed. This antibody gave a decreased signal in A431 cells fixed with 4% paraformaldehyde (10 min)/permeabilized in 0.1% PBS-Tween used under the same conditions.



Immunocytochemistry/ Immunofluorescence - Anti-p38 delta/MAPK13 + p38 alpha/MAPK14 antibody [M138] (ab31828)

This image is courtesy of an anonymous Abreview.

Immunocytochemical analysis of mouse embryo fibroblast cells (NIH-3T3), labelling p38 with ab31828. Sample fixed in paraformaldehyde and blocked with 1% Donkey Serum + 1% BSA + 0.1% Triton X-100, in PBS for 30 minutes at 22°C. Incubated with ab31828 diluted 1/500 in 1% Donkey Serum + 1% BSA + 0.1% Triton X for 1 hour at 22°C. Secondary antibody was a Donkey anti-Mouse polyclonal conjugated to Alexa Fluor® 488, diluted 1/500.

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