abcam

Product datasheet

Anti-p38 (phospho T180 + Y182) antibody [M139] ab45381

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Overview

Product name	Anti-p38 (phospho T180 + Y182) antibody [M139]
Description	Mouse monoclonal [M139] to p38 (phospho T180 + Y182)
Host species	Mouse
Specificity	This antibody detects a 42 kDa protein corresponding to the apparent molecular mass of p38a. This peptide sequence is highly conserved in the p38ß,g, and d MAPKs, and is identical in human and mouse p38a.
Tested applications	**Suitable for:** WB **Unsuitable for:** ICC/IF
Species reactivity	**Reacts with:** Mouse, Human
Immunogen	Synthetic peptide corresponding to Rat p38 (phospho T180 + Y182) conjugated to Keyhole Limpet Haemocyanin (KLH). Clone M139 was generated from a phospho-p38α (Thr-180/Tyr-182) synthetic peptide (coupled to KLH) corresponding to amino acid residues around threonine 180 and tyrosine 182 of rat p38α.
Positive control	Pervanadate treated human Jurkat and A431 cells and anisomycin treated human HeLa 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: PBS, 50% Glycerol, 0.1% BSA
Purity	Protein A purified

Purification notes	Mouse monoclonal purified with protein A chromatography.
Clonality	Monoclonal
Clone number	M139
Isotype	IgG1

Applications

The Abpromise guarantee Our **Abpromise guarantee** covers the use of ab45381 in the following tested applications.

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

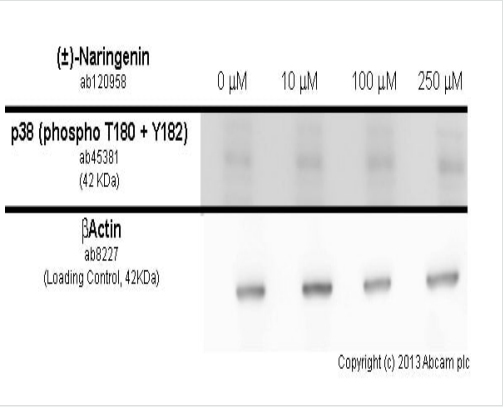
Application	Abreviews	Notes
WB	★★★★☆ **(3)**	1/1000. Predicted molecular weight: 42 kDa.

Application notes Is unsuitable for ICC/IF.

Target

Function	Responds to activation by environmental stress, pro-inflammatory cytokines and lipopolysaccharide (LPS) by phosphorylating a number of transcription factors, such as ELK1 and ATF2 and several downstream kinases, such as MAPKAPK2 and MAPKAPK5. Plays a critical role in the production of some cytokines, for example IL-6. May play a role in stabilization of EPO mRNA during hypoxic stress. Isoform Mxi2 activation is stimulated by mitogens and oxidative stress and only poorly phosphorylates ELK1 and ATF2. Isoform Exip may play a role in the early onset of apoptosis.
Tissue specificity	Brain, heart, placenta, pancreas and skeletal muscle. Expressed to a lesser extent in lung, liver and kidney.
Sequence similarities	Belongs to the protein kinase superfamily. CMGC Ser/Thr protein kinase family. MAP kinase subfamily. Contains 1 protein kinase domain.
Domain	The TXY motif contains the threonine and tyrosine residues whose phosphorylation activates the MAP kinases.
Post-translational modifications	Dually phosphorylated on Thr-180 and Tyr-182, which activates the enzyme. Phosphorylated upon DNA damage, probably by ATM or ATR.
Cellular localization	Cytoplasm. Nucleus.

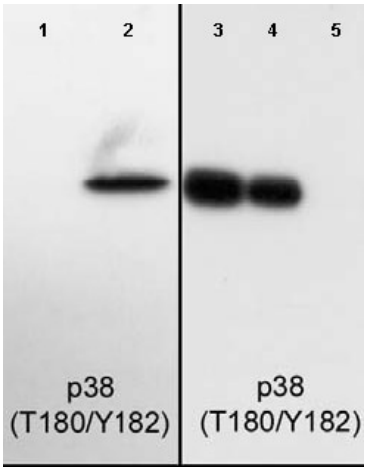
Images



Western blot - Anti-p38 (phospho T180 + Y182) antibody [M139] (ab45381)

Serum starved HepG2 cells were incubated at 37°C for 30 minutes with vehicle control (0 µM) and different concentrations of (±)-naringenin (**ab120958**). Increased expression of p38 (phospho T180 + Y182) (

Whole cell lysates were prepared with RIPA buffer (containing protease inhibitors and sodium orthovanadate), 10µg of each were loaded on the gel and the WB was run under reducing conditions. After transfer the membrane was blocked for an hour using 5% BSA before being incubated with µg /ml and **ab8227** at 1/1000 dilution overnight at 4°C. Antibody binding was detected using an anti-mouse antibody conjugated to HRP (**ab97040**) at 1/10000 and visualised using ECL development solution.



Western blot - Anti-p38 (phospho T180 + Y182) antibody [M139] (ab45381)

All lanes : Anti-p38 (phospho T180 + Y182) antibody [M139] (ab45381) at 1/1000 dilution

Lane 1 : A431 cells serum starved overnight
Lane 2 : A431 cells treated with pervanadate (1 mM) for 30 minutes
Lane 3 : A431 cells treated with pervanadate (1 mM) for 30 minutes with No peptide
Lane 4 : A431 cells treated with pervanadate (1 mM) for 30 minutes with phospho-ERK1 (T202/Y204) peptide
Lane 5 : A431 cells treated with pervanadate (1 mM) for 30 minutes with phoshpo-p38 (T180/Y182) peptide

Lysates/proteins at 20 µg per lane.

Predicted band size: 42 kDa
Observed band size: 42 kDa

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