

## Product datasheet

### Anti-p38 (phospho T180) antibody [EPR16587] ab178867

Recombinant **RabMAb**

★★★★★ **2 Abreviews** **68 References** [8 Images](#)

#### Overview

<b>Product name</b>	Anti-p38 (phospho T180) antibody [EPR16587]
<b>Description</b>	Rabbit monoclonal [EPR16587] to p38 (phospho T180)
<b>Host species</b>	Rabbit
<b>Specificity</b>	ab178867 recognizes alpha, beta, gamma and delta isoforms of (T180) phospho p38. ab178867 weakly cross-reacts with phosphorylated Y182.
<b>Tested applications</b>	<b>Suitable for:</b> Flow Cyt (Intra), Dot blot, WB, IHC-P, Indirect ELISA
<b>Species reactivity</b>	<b>Reacts with:</b> Human
<b>Immunogen</b>	Synthetic peptide. This information is proprietary to Abcam and/or its suppliers.
<b>Positive control</b>	WB: HeLa treated with anisomycin whole cell lysates. IHC-P: Human squamous cell cervical carcinoma and transitional cell carcinoma of bladder tissues. Flow Cyt (intra): Jurkat cells treated with anisomycin.
<b>General notes</b>	<p>This product is a recombinant monoclonal antibody, which offers several advantages including:</p> <ul style="list-style-type: none"> <li>- High batch-to-batch consistency and reproducibility</li> <li>- Improved sensitivity and specificity</li> <li>- Long-term security of supply</li> <li>- Animal-free production</li> </ul> <p>For more information <a href="#">see here</a>.</p> <p>Our RabMAb<sup>®</sup> technology is a patented hybridoma-based technology for making rabbit monoclonal antibodies. For details on our patents, please refer to <a href="#">RabMAb<sup>®</sup> patents</a>.</p>

#### Properties

<b>Form</b>	Liquid
<b>Storage instructions</b>	Shipped at 4°C. Store at +4°C short term (1-2 weeks). Upon delivery aliquot. Store at -20°C long term. Avoid freeze / thaw cycle.
<b>Storage buffer</b>	Preservative: 0.01% Sodium azide Constituents: 59% PBS, 40% Glycerol (glycerin, glycerine), 0.05% BSA
<b>Purity</b>	Protein A purified
<b>Clonality</b>	Monoclonal

Clone number	EPR16587
Isotype	IgG

## Applications

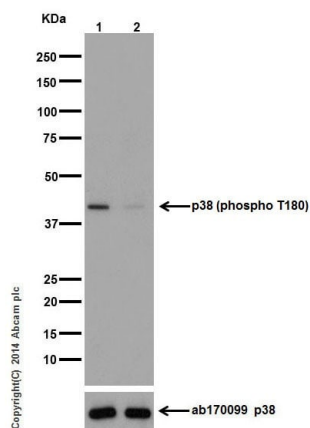
**The Abpromise guarantee** Our **Abpromise guarantee** covers the use of ab178867 in the following tested applications. The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Application	Abreviews	Notes
Flow Cyt (Intra)		1/340. <b>ab172730</b> - Rabbit monoclonal IgG, is suitable for use as an isotype control with this antibody.
Dot blot		1/1000.
WB	★★★★★ (2)	1/1000. Detects a band of approximately 41 kDa (predicted molecular weight: 41 kDa).
IHC-P		1/500. Perform heat mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.
Indirect ELISA		Use at an assay dependent concentration.

## Target

<b>Function</b>	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.
<b>Tissue specificity</b>	Brain, heart, placenta, pancreas and skeletal muscle. Expressed to a lesser extent in lung, liver and kidney.
<b>Sequence similarities</b>	Belongs to the protein kinase superfamily. CMGC Ser/Thr protein kinase family. MAP kinase subfamily. Contains 1 protein kinase domain.
<b>Domain</b>	The TXY motif contains the threonine and tyrosine residues whose phosphorylation activates the MAP kinases.
<b>Post-translational modifications</b>	Dually phosphorylated on Thr-180 and Tyr-182, which activates the enzyme. Phosphorylated upon DNA damage, probably by ATM or ATR.
<b>Cellular localization</b>	Cytoplasm. Nucleus.

## Images



Western blot - Anti-p38 (phospho T180) antibody [EPR16587] (ab178867)

**Lane 1 :** Anti-p38 (phospho T180) antibody [EPR16587] (ab178867) at 1/1000 dilution  
**Lane 2 :** Anti-p38 (phospho T180) antibody [EPR16587] (ab178867) at 1/10000 dilution

**Lane 1 :** HeLa (Human epithelial cells from cervix adenocarcinoma) whole cell lysates treated with 250ng/ml anisomycin for 30 minutes  
**Lane 2 :** Untreated Hela whole cell lysates

Lysates/proteins at 10 µg per lane.

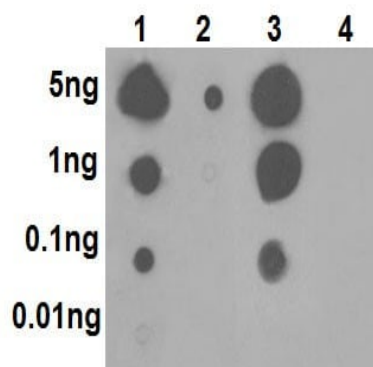
## Secondary

**All lanes :** Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated at 1/1000 dilution

**Predicted band size:** 41 kDa

**Observed band size:** 41 kDa

Blocking/Dilution buffer: 5% NFDM/TBST.



Dot Blot - Anti-p38 (phospho T180) antibody [EPR16587] (ab178867)

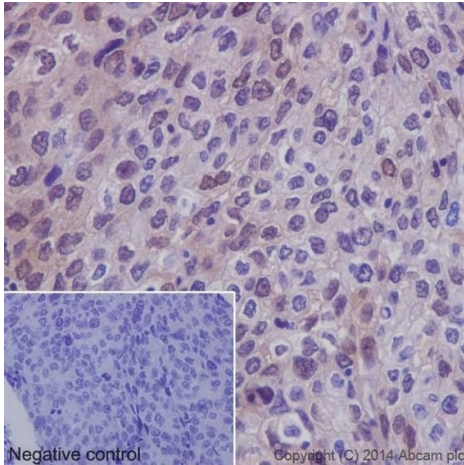
Dot blot analysis of p38 peptides using ab178867 at 1/1000 dilution followed by Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated secondary antibody at 1/1000 dilution. Blocking and diluting buffer was 5% NFDM/TBST.

Lane 1: Single phospho peptide pT180

Lane 2: Single phospho peptide pY182

Lane 3: Double phospho peptide pT180/pY182

Lane 4: Non-phospho peptide

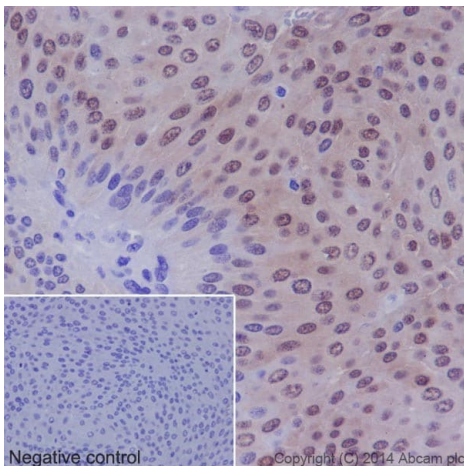


Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-p38 (phospho T180) antibody [EPR16587] (ab178867)

Immunohistochemical analysis of paraffin-embedded Human squamous cell cervical carcinoma tissue labeling p38 (phospho T180) with ab178867 at 1/500 dilution followed by Goat Anti-Rabbit IgG H&L (HRP) ([ab97051](#)) at 1/500 dilution. Nuclear and cytoplasmic staining on cancer cells of cervix is observed. Counter stained with Hematoxylin.

Negative control: Used PBS instead of primary antibody followed by Goat Anti-Rabbit IgG H&L (HRP) ([ab97051](#)) at 1/500 dilution.

Perform heat mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.

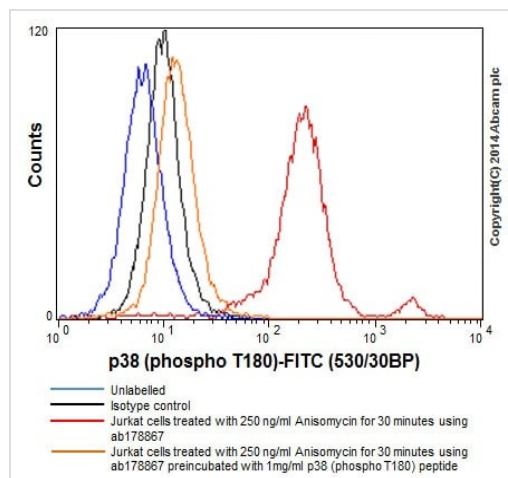


Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-p38 (phospho T180) antibody [EPR16587] (ab178867)

Immunohistochemical analysis of paraffin-embedded Human transitional cell carcinoma of bladder tissue labeling p38 (phospho T180) with ab178867 at 1/500 dilution followed by Goat Anti-Rabbit IgG H&L (HRP) ([ab97051](#)) at 1/500 dilution. Nuclear with additional cytoplasmic staining on cancer cells of bladder is observed. Counter stained with Hematoxylin.

Negative control: Used PBS instead of primary antibody followed by Goat Anti-Rabbit IgG H&L (HRP) ([ab97051](#)) at 1/500 dilution.

Perform heat mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.



Flow Cytometry (Intracellular) - Anti-p38 (phospho T180) antibody [EPR16587] (ab178867)

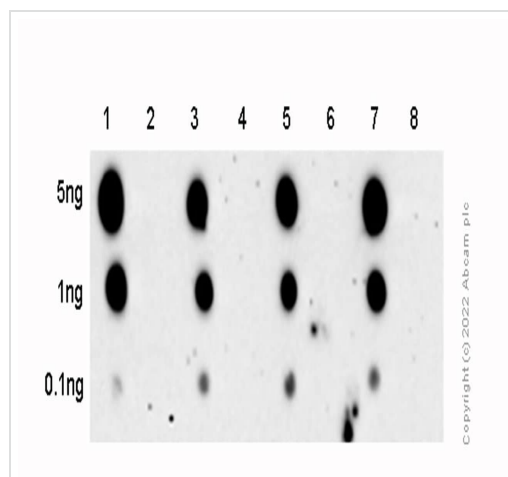
Intracellular flow cytometric analysis of 2% paraformaldehyde-fixed Jurkat (Human T cell leukemia cells from peripheral blood) cells treated with Anisomycin (250ng/ml for 30min) labeling p38 (phospho T180) with ab178867 at 1/340 dilution followed by Goat anti rabbit IgG (FITC) at 1/150 (red).

Controls:-

Blue - Unlabelled (Cells without incubation with primary antibody and secondary antibody)

Black - Rabbit monoclonal IgG Isotype control

Orange - Jurkat cells treated with Anisomycin (250ng/ml for 30min) labeling p38 (phospho T180) with ab178867 at 1/340 preincubated with 1mg/ml p38 (phospho T180) peptide



Dot Blot - Anti-p38 (phospho T180) antibody [EPR16587] (ab178867)

Dot blot analysis of p38 (phospho T180) using ab178867 at 1:2000 (1 µg/ml) followed by a Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated (**ab97051**) at 1:100,000 dilution. Exposure time: 3 minutes. Blocking and diluting buffer and concentration: 5% NFDM/TBST.

**Lane 1:** MPK11/beta (T180) phospho peptide

**Lane 2:** MPK11/beta non-phospho peptide

**Lane 3:** MPK12/gamma (T183) phospho peptide

**Lane 4:** MPK12/gamma non-phospho peptide

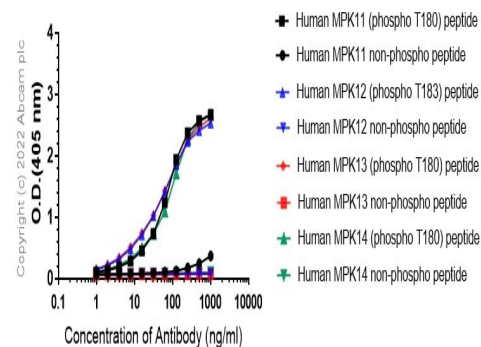
**Lane 5:** MPK13/delta (T180) phospho peptide

**Lane 6:** MPK13/delta non-phospho peptide

**Lane 7:** MPK14/alpha (T180) phospho peptide

**Lane 8:** MPK14/alpha non-phospho peptide

Indirect ELISA antibody dose-response curve  
antigen at 100 ng/ml



Indirect ELISA - Anti-p38 (phospho T180) antibody  
[EPR16587] (ab178867)

Indirect ELISA showing primary antibody ab178867 binding to Human MPK11, MPK12, MPK13, and MPK14 phosphorylated and non-phosphorylated peptides. Antigen concentration is 100 ng/ml.

Binding of ab178867 was assessed in a serial dilution range 1000-0 ng/ml.

Binding was detected using the secondary antibody, Alkaline Phosphatase-conjugated AffiniPure Goat Anti-Rabbit IgG (H+L) at 1/2500 dilution.

### Why choose a recombinant antibody?



**Research with confidence**  
Consistent and reproducible results



**Long-term and scalable supply**  
Recombinant technology



**Success from the first experiment**  
Confirmed specificity



**Ethical standards compliant**  
Animal-free production

Anti-p38 (phospho T180) antibody [EPR16587]  
(ab178867)

**Please note:** All products are "FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC PROCEDURES"

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