

## p38 MAPK [pTpY180/182] ABfinity™ Recombinant Rabbit Monoclonal Antibody – Purified

Publication Part no. MAN0005053

Rev. Date: 15 September 2011

Catalog Number: 701057

Store at 2–8°C

**Clonality:** Monoclonal  
**Concentration:** 0.5 mg/mL  
**Quantity:** 100 µg  
**Volume:** 200 µL

**Host/Class:** Rabbit IgG  
**Reactivity:** Human p38 MAPK  
**Predicted Reactivity:** Human

### Product Description

p38 mitogen-activated protein kinase (MAPK) belongs to the mitogen-activated protein kinase family that responds to stress stimuli. The p38 MAPK subfamily plays an important role in cytokine production and the stress response. Members are activated by UV irradiation, heat shock, high osmotic stress, protein synthesis inhibitors, lipopolysaccharides, proinflammatory cytokines (e.g., IL-1 and TNF- $\alpha$ ) and certain mitogens. There are four p38 kinases ( $\alpha$ ,  $\beta$ ,  $\gamma$ , and  $\delta$ ), with p38 $\alpha$  being well characterized, and expressed in most cell types. Additional functions for p38 MAPK include inhibition of cell cycle progression, development, and differentiation. An important target of p38 MAPK is the tumor suppressor protein p53, whose activation is positively regulated by p38. MKK3, MKK6 and SEK phosphorylate p38 MAPK at threonine 180 and tyrosine 182. Phosphorylation of these residues activates p38 MAPK, which in turn activates and phosphorylates ATF1, ATF2 and ATF6.

### Product Specifications

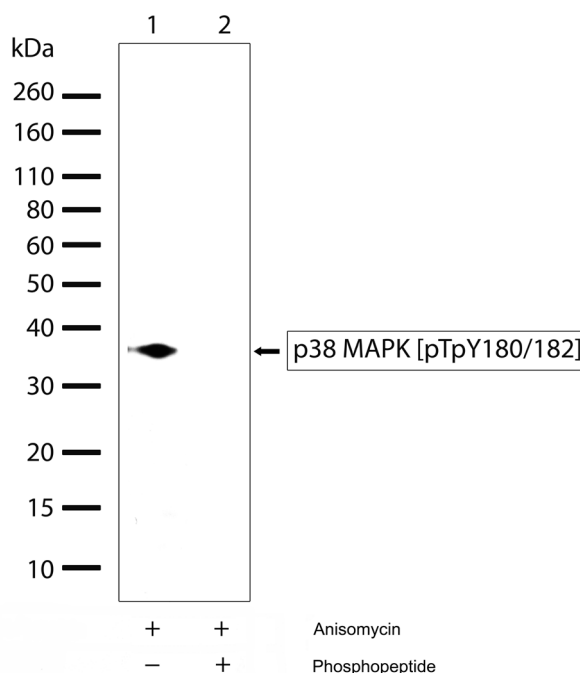
**Immunogen:** Phosphopeptide corresponding to amino acids 176–186 of human p38 MAPK  
**Alternate Names:** RK, CSBP, SAPK2 (stress-activated protein kinase 2)  
**Apparent MW:** ~38 kDa  
**Gene ID:** 1432  
**Protein Accession No.:** Q16539  
**Sequence Identity:** Human  
**Clone/PAD:** B10H8L5  
**Lot:** See product label

### Product Applications

Application	Species	Test Material	Concentration
Western blotting	Human	HeLa cells	0.1–2 µg/mL
Indirect ELISA	Human	Phosphopeptide	1.5 × 10 <sup>-4</sup> to 3 µg/mL

### Storage and Handling

Store the antibody at 2–8°C for up to 1 month, or –20°C for long storage. Avoid repeated freezing and thawing.



**Figure 1** Western blot analysis of p38 MAPK [pTpY180/182] ABfinity™ Recombinant Rabbit Monoclonal Antibody (Cat. no. 701057). Western blot analysis was performed on whole cell extracts of HeLa treated with anisomycin (5 µg/mL for 30 minutes, lane 1 and 2). A band corresponding to phosphorylated p38 MAPK at ~38 kDa was detected using p38 MAPK [pTpY180/182] ABfinity™ Recombinant Rabbit Monoclonal Antibody at a concentration of 1 µg/mL (lane 1). To confirm specificity, competition was performed with the phosphopeptide (lane 2).

**For research use only. Not for human or animal therapeutic or diagnostic use.**

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## Stability

Expires one year from date of receipt when stored as instructed.

## Storage Buffer

Phosphate buffered saline (PBS) with 0.09% sodium azide.

## Safety Data Sheets (SDS)

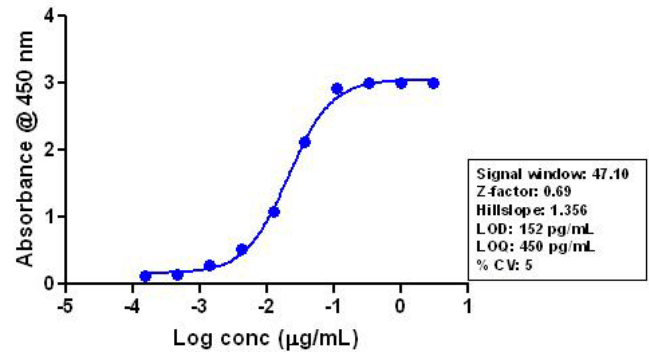
Safety Data Sheets (SDSs) are available at [www.invitrogen.com/sds](http://www.invitrogen.com/sds).

## Certificate of Analysis

The Certificate of Analysis provides detailed quality control and product qualification information for each product. Certificates of Analysis are available on our website. Go to [www.invitrogen.com/support](http://www.invitrogen.com/support) and search for the Certificate of Analysis by product lot number, which is printed on the box.

## Related Products

Product Name	Quantity	Catalog No.
iBlot® Dry Blotting System	1 unit	IB1001
WesternBreeze™ Chromogenic Kit Anti-Rabbit	1 kit	WB7105
WesternBreeze™ Chemiluminescent Kit, Anti-Rabbit	1 kit	WB7106
Goat anti-mouse (H+L), HRP conj.	1 mg	G21040
Goat anti-rabbit (H+L), HRP conj.	1 mg	G21234
Goat anti-mouse (H+L), AP conj.	1 mg	G21060
Goat anti-rabbit (H+L), AP conj.	1 mg	G21079
Nitrocellulose, 0.2 µm	20/pack	LC2000



**Figure 2** Indirect ELISA of p38 MAPK [pTpY180/182] ABfinity™ Recombinant Rabbit Monoclonal Antibody (Cat. no. 701057). Indirect ELISA was performed using various dilutions of p38 MAPK [pTpY180/182] ABfinity™ Recombinant Rabbit Monoclonal Antibody (Cat. no. 701057) to detect phospho p38 MAPK [pTpY180/182] peptide coated onto the plate. A non-linear regression analysis was performed (4 PL) and LOD and LOQ for the antibody was determined.

### Explanation of symbols

Symbol	Description	Symbol	Description
	Catalogue Number		Batch code
	Research Use Only		In vitro diagnostic medical device
	Use by		Temperature limitation
	Manufacturer		European Community authorised representative
	Without, does not contain		With, contains
	Protect from light		Consult accompanying documents
	Directs the user to consult instructions for use (IFU), accompanying the product.		

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