

Datasheet for ABIN678668

anti-MAPK14 antibody (pThr180, pTyr182)[Go to Product page](#)**1** Validation**3** Images**3** Publications

Overview

Quantity:	100 µL
Target:	MAPK14
Binding Specificity:	pThr180, pTyr182
Reactivity:	Human, Mouse, Rat, Chicken, Goat
Host:	Rabbit
Clonality:	Polyclonal
Conjugate:	This MAPK14 antibody is un-conjugated
Application:	Western Blotting (WB), ELISA, Immunohistochemistry (Paraffin-embedded Sections) (IHC (p)), Flow Cytometry (FACS), Immunofluorescence (Cultured Cells) (IF (cc))

Product Details

Immunogen:	KLH conjugated synthetic phosphopeptide derived from human p38 MAPK around the phosphorylation site of(Thr180/Tyr182)
Isotype:	IgG
Cross-Reactivity:	Chicken, Goat, Human, Mouse, Rat
Predicted Reactivity:	Dog,Pig,Horse,Rabbit
Purification:	Purified by Protein A.

Target Details

Target:	MAPK14
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Target Details

Alternative Name:	p38 MAPK + (MAPK14 Products)
Background:	<p>Synonyms: RK, p38, CSBP, EXIP, Mxi2, CSBP1, CSBP2, CSPB1, PRKM14, PRKM15, SAPK2A, p38ALPHA, Mitogen-activated protein kinase 14, MAP kinase 14, MAPK 14, Cytokine suppressive anti-inflammatory drug-binding protein, CSAID-binding protein, MAP kinase MXI2, MAX-interacting protein 2, Mitogen-activated protein kinase p38 alpha, MAP kinase p38 alpha, Stress-activated protein kinase 2a, MAPK14</p> <p>Background: The protein encoded by this gene is a member of the MAP kinase family. MAP kinases act as an integration point for multiple biochemical signals, and are involved in a wide variety of cellular processes such as proliferation, differentiation, transcription regulation and development. This kinase is activated by various environmental stresses and proinflammatory cytokines. The activation requires its phosphorylation by MAP kinase kinases (MKKs), or its autophosphorylation triggered by the interaction of MAP3K7IP1/TAB1 protein with this kinase. The substrates of this kinase include transcription regulator ATF2, MEF2C, and MAX, cell cycle regulator CDC25B, and tumor suppressor p53, which suggest the roles of this kinase in stress related transcription and cell cycle regulation, as well as in genotoxic stress response. Four alternatively spliced transcript variants of this gene encoding distinct isoforms have been reported. [provided by RefSeq, Jul 2008]</p>
Gene ID:	1432
UniProt:	Q16539
Pathways:	MAPK Signaling , Neurotrophin Signaling Pathway , Activation of Innate immune Response , Cellular Response to Molecule of Bacterial Origin , Regulation of Muscle Cell Differentiation , Regulation of Cell Size , Hepatitis C , Toll-Like Receptors Cascades , Autophagy , Thromboxane A2 Receptor Signaling , BCR Signaling , S100 Proteins

Application Details

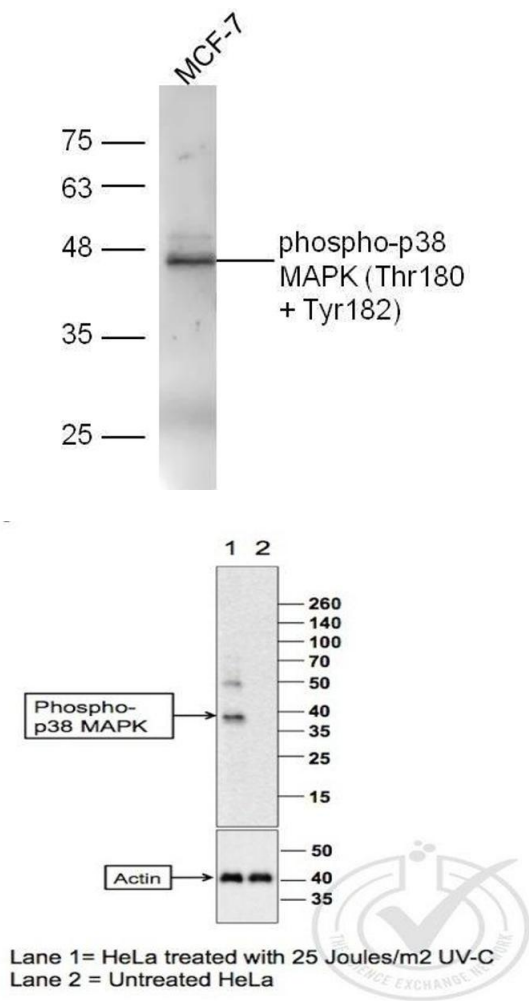
Application Notes:	WB 1:300-5000 ELISA 1:500-1000 FCM 1:20-100 IHC-P 1:200-400 IF(ICC) 1:50-200
Restrictions:	For Research Use only

Handling

Format:	Liquid
Concentration:	1 µg/µL
Buffer:	0.01M TBS(pH 7.4) with 1 % BSA, 0.02 % Proclin300 and 50 % Glycerol.
Preservative:	ProClin
Precaution of Use:	This product contains ProClin: a POISONOUS AND HAZARDOUS SUBSTANCE, which should be handled by trained staff only.
Storage:	4 °C,-20 °C
Storage Comment:	Shipped at 4°C. Store at -20°C for one year. Avoid repeated freeze/thaw cycles.
Expiry Date:	12 months

Publications

Product cited in:	<p>Iriyama, Hatta, Takei: "Direct effect of dasatinib on signal transduction pathways associated with a rapid mobilization of cytotoxic lymphocytes." in: Cancer medicine, Vol. 5, Issue 11, pp. 3223-3234, (2016) (PubMed).</p> <p>Li, Yu, Liu, Zhu, Hua: "Expression of miR-34c in response to overexpression of Boule and Stra8 in dairy goat male germ line stem cells (mGSCs)." in: Cell biochemistry and function, Vol. 31, Issue 4, pp. 281-8, (2013) (PubMed).</p> <p>Wang, Sun, Liu, Yu, Li, Zeng, Chen, Jia: "Upregulation of progranulin by Helicobacter pylori in human gastric epithelial cells via p38MAPK and MEK1/2 signaling pathway: role in epithelial cell proliferation and migration." in: FEMS immunology and medical microbiology, Vol. 63, Issue 1, pp. 82-92, (2012) (PubMed).</p>
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Western Blotting

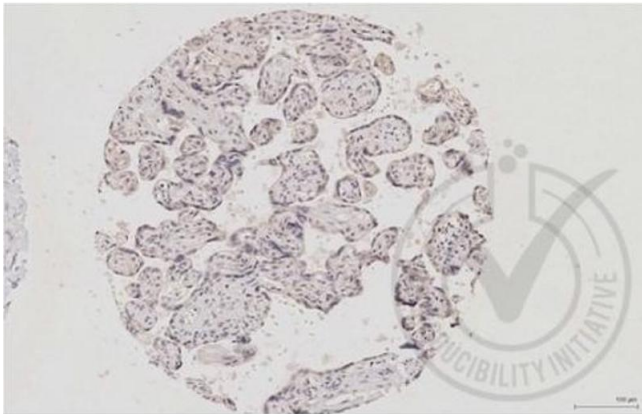
Image 1. Human MCF7 lysates probed with Rabbit Anti-p38 MAPK (Thr180+Tyr182) Polyclonal Antibody, Unconjugated at 1:5000 for 90 min at 37°C.

Western Blotting

Image 2. Images provided by the Independent Validation Program (badge 29798). Lane one: HeLa cell lysates irradiated with 25 Joules/m2UV-C Lane 2: Non-irradiated HeLa cell lysates probed with Rabbit Anti-p38 MAPK (Thr180 + Tyr182) Polyclonal Antibody, Unconjugated at 1:100 overnight at 4°C. Followed by conjugation to secondary antibody at 1:10000 for 60 min at 37°C.

Immunohistochemistry (Paraffin-embedded Sections)

Image 3. Images provided the Independent Validation Program (badge number 029662) Formalin-fixed and paraffin embedded human placenta labeled with Rabbit Anti-phospho-p38 MAPK (Thr180 + Tyr182) Polyclonal Antibody at 1:250 overnight at room temperature followed by conjugation to secondary antibody.





Successfully validated (Immunohistochemistry (IHC))

by [Immunohistochemistry Core, NYU Langone](#)

Report Number: 029662

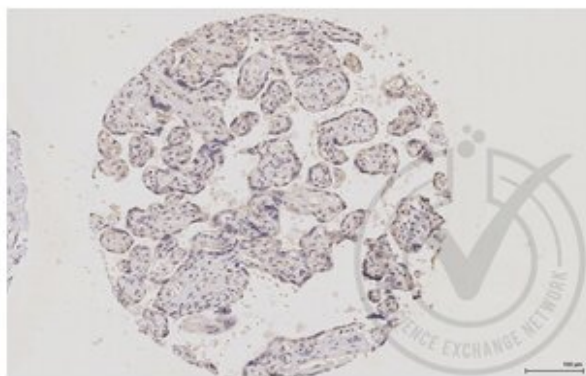
Date: Apr 09 2014

Lot Number:	140106
Method validated:	Immunohistochemistry (IHC)
Positive Control:	Human placenta tissue
Negative Control:	Human tonsil tissue (no literature evidence of phospho-p38 MAPK in tonsil)
Notes:	Signal is detected in positive control tissue and not in negative control tissue.
Primary Antibody:	- Antigen: Mitogen-Activated Protein Kinase 14 (MAPK14) (pThr180), (pTyr182) - Catalog number: ABIN678668 - Supplier: Bioss - Supplier catalog number: bs-2210R - Lot number: 140106
Secondary Antibody:	- Antibody: Biotinylated goat anti-rabbit/anti-mouse (Kit) - Supplier: Ventana Medical Systems - Catalog number: 760-091 - Lot number: D07640BA
Isotype:	- Antibody: Rabbit IgG isotype control - Supplier: Ventana Medical Systems - Catalog number: 790-2014 - Lot number: C11245
Controls:	<ul style="list-style-type: none"> • Positive control: Human placenta tissue stained with antibody • Negative control: Human tonsil tissue stained with antibody • Isotype control: Human placenta tissue stained with isotype control • Secondary only control: Human placenta tissue stained with secondary antibody only
Protocol:	<ul style="list-style-type: none"> • Immunohistochemistry was performed on a Ventana NEXes automated platform; instrument manufacturer specific reagents are italicized. • 1. Slides were preheated in convection oven at 60°C for 30 min • 2. Deparaffinization procedure: - 3 changes of Xylene, 5 min each - 3 changes of 100% Ethanol, 3 min each - 3 changes of 95% Ethanol, 3 min each - Rinsed in distilled water, 3 changes • 3. Heat retrieval procedure - Slides retrieved in 10.0 mM Citrate, pH6.0 in a 1000W microwave oven (~100°C) for 15 min. - Slides were allowed to cool (in citrate) for 30 min. - Slides were washed x 3 in Distilled water • 4. NEXes instrument procedure, iView DAB paraffin protocol (*abridged*): - Slide chamber warmed to 37°C • 5. Slides rinsed with *reaction buffer* x3

- 6. *iView Inhibitor (H2O2)* applied and incubated for 4 min
- 7. Slides rinsed with *reaction buffer*
- 8. Antibody Application - Primary antibody diluted 1:250 in PBS (100 microliter applied/slide) - Ventana Isotype control applied neat - Slides Incubated overnight at room temperature (~12 hours ~25°C)
- 9. Slides rinsed with *reaction buffer* x3
- 10. *iView Biotinylated IgG* applied and incubated for 8 min
- 11. Slides rinsed with *reaction buffer*
- 14. *iView Streptavidin-Horseradish Peroxidase* applied and incubated for 8 min
- 15. Slides rinsed with *reaction buffer*
- 16. *iView DAB/H2O2* applied and incubated for 8 min
- 17. Slides rinsed with *reaction buffer*
- 18. *iView Copper* applied and incubated for 4 min
- 19. Slides rinsed with *reaction buffer*
- 20. Slides washed in Dawn Detergent/tap water
- 21. Counterstain Procedure - Hematoxylin (Leica 560 MX) 30 sec - Slides washed in tap water, 1 min - Decolorized (10% Acetic Acid in 70% ethanol), 1 min - Slides washed in tap water, 1 min - Bluing (Austin Clear Ammonia), 1 min - Slides washed in tap water, 1 min
- 22. Dehydration/cover slipping procedure: - 3 changes of 95% Ethanol, 3 min each - 3 changes of 100% Ethanol, 3 min each - 3 changes of Xylene, 5 min each - Mounted with Permount
- 23. Imaging: Leica SCN 400F Whole Slide Scanner with Digital Image Hub and Leica Slidepath software

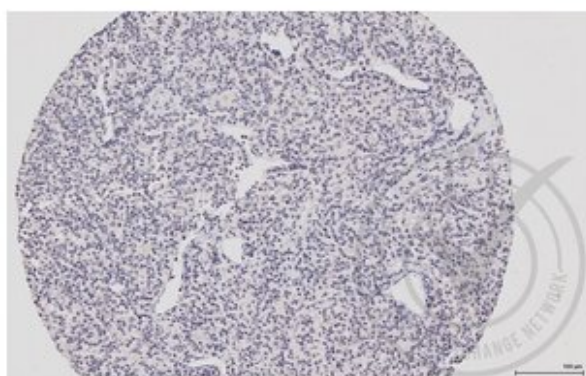
Experimental Notes:

- Deviations from protocol/procedure supplied by manufacturer:
 - Step 1: Heated tissue 60°C for 30 minutes; manufacturer heats for 45 minutes.
 - Step 2: No ethanol wash was performed during deparaffinization; manufacturer includes 1 wash of 80% ethanol for 3 minutes.
 - Step 3.1: Slides were heated for 15 minutes; manufacturer provides a range of 15-20 minutes.
 - Step 3.2: Slides were cooled for 30 minutes; manufacturer cools for 20 minutes.
 - Step 4: Italicized reagents and incubation time are fixed instrument parameters.
 - Step 5: Secondary species-specific serum block not used; manufacturer blocks with 5% normal goat serum for 2 hours.
 - Step 8.1: Antibody diluted in PBS at 1:250; manufacture did not recommend diluent or dilution.
 - Step 8.2.1: Primary antibody incubated at room temperature overnight; manufacturer incubates overnight 4°C with agitation.
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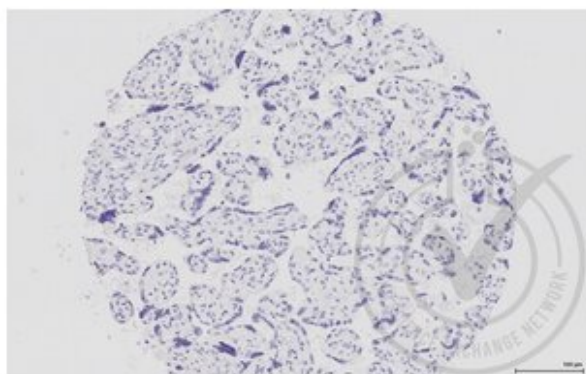
Validation image no. 1 for anti-Mitogen-Activated Protein Kinase 14 (MAPK14) (pThr180), (pTyr182) antibody (ABIN678668)

Figure 1: Human placenta tissue stained with anti-phospho-MAPK14 (brown) and counterstained with hematoxylin.



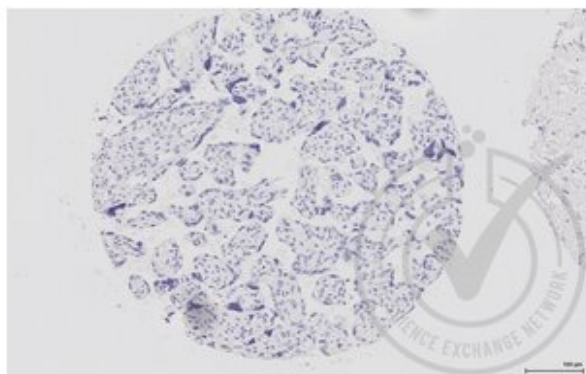
Validation image no. 2 for anti-Mitogen-Activated Protein Kinase 14 (MAPK14) (pThr180), (pTyr182) antibody (ABIN678668)

Figure 2: Human tonsil tissue stained with anti-phospho-MAPK14 (brown) and counterstained with hematoxylin.



Validation image no. 3 for anti-Mitogen-Activated Protein Kinase 14 (MAPK14) (pThr180), (pTyr182) antibody (ABIN678668)

Figure 3: Human placenta tissue stained with isotype control antibody (brown) and counterstained with hematoxylin.



Validation image no. 4 for anti-Mitogen-Activated Protein Kinase 14 (MAPK14) (pThr180), (pTyr182) antibody (ABIN678668)

Figure 4: Human placenta tissue stained with secondary antibody only (brown) and counterstained with hematoxylin.