

Datasheet: AHP2693

Description:	RABBIT ANTI MAPK8/MAPK9 (pThr183/pTyr185)/MAPK10 (pThr221/pTyr223)
Specificity:	MAPK8/MAPK9 (pThr183/pTyr185)/MAPK10 (pThr221/pTyr223)
Format:	Purified
Product Type:	Polyclonal Antibody
Isotype:	Polyclonal IgG
Quantity:	50 µl

Product Details

Applications

This product has been reported to work in the following applications. This information is derived from testing within our laboratories, peer-reviewed publications or personal communications from the originators. Please refer to references indicated for further information. For general protocol recommendations, please visit www.bio-rad-antibodies.com/protocols.

	Yes	No	Not Determined	Suggested Dilution
Western Blotting	■			1/500 - 1/2000

Where this product has not been tested for use in a particular technique this does not necessarily exclude its use in such procedures. Suggested working dilutions are given as a guide only. It is recommended that the user titrates the product for use in their own system using appropriate negative/positive controls.

Target Species

Rat

Species Cross Reactivity

Based on sequence similarity, is expected to react with: Human, Mouse
N.B. Antibody reactivity and working conditions may vary between species.

Product Form

Purified IgG - liquid

Antiserum Preparation

Antiserum to MAPK8/MAPK9 (pThr183/pTyr185)/MAPK10 (pThr221/pTyr223) was raised by repeated immunisation of rabbits with highly purified antigen. Purified IgG was prepared from whole serum by affinity chromatography.

Buffer Solution

Phosphate buffered saline

Preservative Stabilisers

0.02% Sodium Azide
 50% Glycerol

Immunogen

Phospho specific-peptide corresponding to residues surrounding threonine 183/tyrosine 185 of human MAPK8/MAPK9 and to residues surrounding threonine 221/tyrosine 223 of human MAPK10.

External Database Links

UniProt:

[P45983](#) [Related reagents](#)
[P45984](#) [Related reagents](#)
[P53779](#) [Related reagents](#)

Entrez Gene:

[5599](#) MAPK8 [Related reagents](#)
[5601](#) MAPK9 [Related reagents](#)
[5602](#) MAPK10 [Related reagents](#)

Synonyms JNK1, JNK2, JNK3, JNK3A, PRKM10, PRKM8, PRKM9, SAPK1

Specificity **Rabbit anti MAPK8/MAPK9 (pThr183/pTyr185)/MAPK10 (pThr221/pTyr223) antibody** recognizes mitogen activated protein kinase (MAPK) 8 and 9, also known as c-Jun N-terminal kinases 1 and 2 or stress activated protein kinases 1 and 2, when phosphorylated on threonine 183 and tyrosine 185. This antibody also recognizes MAPK10, also known as c-Jun N-terminal kinase 3 or stress activated protein kinase 3, when phosphorylated on threonine 221 and tyrosine 223.

As their name implies, MAPK8/9/10 are members of the serine/threonine MAP kinase family, which become activated by environmental stressors. In addition, activation through phosphorylation events has been reported upon stimulation of toll-like receptors and exposure to pro-inflammatory cytokines ([Guma and Firestein 2012](#), [Bogoyevitch and Kobe 2006](#)).

Two phosphorylation events are critical for the activation of the three MAPKs. The first is on threonine 183, or in the case of MAPK10 threonine 221, by dual specificity mitogen-activated kinase kinase 7 (MKK7) and the second is on tyrosine 185, or in the case of MAPK10 tyrosine 223, by MKK4 ([Fleming 2000](#)). The phosphorylation undertaken by MKK4 and MKK7 is counteracted by phosphatases of the MAP kinase phosphatase (MKP) family (Guma and Firestein 2012).

The three MAPKs play a critical role in mediating cell signaling cascades by phosphorylating transcription factors, such as c-Jun and p53, thereby regulating cellular processes including proliferation and apoptosis (Guma and Firestein 2012).

Western Blotting Due to the presence of phosphoproteins in milk, the use of milk based blocking reagents is not recommended. 1% BSA in PBS or TBS Tween should be used instead.

Further Reading

1. Guma M & Firestein GS (2012) c-Jun N-Terminal Kinase in Inflammation and Rheumatic Diseases. [Open Rheumatol J. 6: 220-31.](#)
2. Bogoyevitch MA & Kobe B (2006) Uses for JNK: the many and varied substrates of the c-Jun N-terminal kinases. [Microbiol Mol Biol Rev. 70 \(4\): 1061-95.](#)
3. Fleming Y *et al.* (2000) Synergistic activation of stress-activated protein kinase 1/c-Jun N-terminal kinase (SAPK1/JNK) isoforms by mitogen-activated protein kinase kinase 4 (MKK4) and MKK7. [Biochem J. 352 Pt 1: 145-54.](#)

Storage Store at -20°C
Storage in frost-free freezers is not recommended.
This product should be stored undiluted. Avoid repeated freezing and thawing as this may denature the antibody. Should this product contain a precipitate we recommend microcentrifugation before use.

Shelf Life 12 months from date of despatch

Health And Safety Information Material Safety Datasheet documentation #10049 available at: 10049: <https://www.bio-rad-antibodies.com/uploads/MSDS/10049.pdf>

Regulatory For research purposes only

Related Products

Recommended Secondary Antibodies

Sheep Anti Rabbit IgG (STAR34...) [FITC](#)
Sheep Anti Rabbit IgG (STAR35...) [RPE](#)
Goat Anti Rabbit IgG (H/L) (STAR124...) [HRP](#)
Goat Anti Rabbit IgG (Fc) (STAR121...) [Biotin](#), [FITC](#), [HRP](#)
Sheep Anti Rabbit IgG (2AB02...) [Biotin](#)
Sheep Anti Rabbit IgG (STAR36...) [DyLight@488](#), [DyLight@549](#), [DyLight@649](#),
[DyLight@680](#), [DyLight@800](#)

Recommended Useful Reagents

[TidyBlot™ WESTERN BLOT DETECTION REAGENT:HRP \(STAR209P\)](#)

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