

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. Cross reactivity is derived from testing within our laboratories, peer-reviewed publications or personal communications from the originators. Please refer to references indicated for further information.

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](#)).

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.
Guarantee	12 months from date of despatch
Health And Safety Information	Material Safety Datasheet documentation #10049 available at: https://www.bio-rad-antibodies.com/SDS/AHP269310049
Regulatory	For research purposes only

Related Products

Recommended Secondary Antibodies

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

Recommended Useful Reagents

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

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To find a batch/lot specific datasheet for this product, please use our online search tool at: [bio-rad-antibodies.com/datasheets](https://www.bio-rad-antibodies.com/datasheets)

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