

## Datasheet: MCA5990GA

<b>Description:</b>	MOUSE ANTI ERK / MAPK (pThr202/pTyr204)
<b>Specificity:</b>	ERK / MAPK (pThr202/pTyr204)
<b>Format:</b>	Purified
<b>Product Type:</b>	Monoclonal Antibody
<b>Clone:</b>	F04-4G10
<b>Isotype:</b>	IgG1
<b>Quantity:</b>	0.1 mg

## 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](http://www.bio-rad-antibodies.com/protocols).

	Yes	No	Not Determined	Suggested Dilution
ELISA	▪			
Western Blotting (1)	▪			1/1000

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.

**(1)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.**

<b>Target Species</b>	Human
<b>Product Form</b>	Purified IgG - liquid
<b>Preparation</b>	Purified IgG prepared by affinity chromatography on Protein G from ascites
<b>Buffer Solution</b>	Phosphate buffered saline
<b>Preservative Stabilisers</b>	0.09% Sodium Azide (NaN <sub>3</sub> )
<b>Approx. Protein Concentrations</b>	IgG concentration 1.0 mg/ml
<b>Immunogen</b>	Synthetic peptide corresponding to residues surrounding threonine 202 and tyrosine 204 of human ERK1/2
<b>External Database Links</b>	<b>UniProt:</b> <a href="#">P27361</a> <a href="#">Related reagents</a> <a href="#">P28482</a> <a href="#">Related reagents</a>

**Entrez Gene:**[5595](#) MAPK3 [Related reagents](#)[5594](#) MAPK1 [Related reagents](#)

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<b>Synonyms</b>	ERK1, ERK2, PRKM1, PRKM2, PRKM3
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<b>Fusion Partners</b>	Spleen cells from immunised BALB/c mice were fused with cells of the mouse SP2/0 myeloma cell line
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<b>Specificity</b>	<p><b>Mouse anti ERK/MAPK (pThr202/pTyr204) antibody, clone F04-4G10</b> recognizes extracellular regulated kinase (ERK), also known as MAPK, when phosphorylated at threonine 202 and tyrosine 204. MAPK1/ERK2 and MAPK3/ERK1 are members of the mitogen activated protein kinase (MAPK) family.</p> <p>MAPKs constitute a diverse set of signalling pathways. In the case of ERK the cascade is initiated by binding activation of a membrane bound receptor which causes activation of a small GTPase, RAS, which in turn activates the protein kinase activity of the RAF protein. RAF in turn phosphorylates and activates MEK. MEK induces phosphorylation of ERK at residues threonine 202 and tyrosine 204. Phosphorylation of the residues corresponds to activation of ERK1/2 and mediation of its diverse biological functions including cell growth, differentiation, motility, and adhesion via its effects on transcription, translation, cytoskeletal rearrangement and cross talk with other signaling pathways (<a href="#">Cseh et al. 2014</a>).</p>
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<b>References</b>	1. Serban, A.I. <i>et al.</i> (2016) RAGE and TGF- $\beta$ 1 Cross-Talk Regulate Extracellular Matrix Turnover and Cytokine Synthesis in AGEs Exposed Fibroblast Cells. <a href="#">PLoS One. 11 (3): e0152376</a> .
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<b>Further Reading</b>	1. Cseh, B. <i>et al.</i> (2014) "RAF" neighborhood: Protein-protein interaction in the Raf/Mek/Erk pathway <a href="#">FEBS Lett. 588: 2398-2406</a> .
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<b>Storage</b>	Store at +4°C or at -20°C if preferred. 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.
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<b>Shelf Life</b>	18 months from date of despatch
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<b>Health And Safety Information</b>	Material Safety Datasheet documentation available at: Material Safety Datasheet documentation #10040 available at <a href="https://www.bio-rad-antibodies.com/uploads/MSDS/10040.pdf">https://www.bio-rad-antibodies.com/uploads/MSDS/10040.pdf</a>
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<b>Regulatory</b>	For research purposes only
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## Related Products

### Recommended Secondary Antibodies

Goat Anti Mouse IgG (STAR76...)

[RPE](#)

Goat Anti Mouse IgG IgA IgM (STAR87...)

[Alk. Phos.](#), [HRP](#)

Rabbit Anti Mouse IgG (STAR13...)

[HRP](#)

Goat Anti Mouse IgG (H/L) (STAR117...) [Alk. Phos.](#), [DyLight@488](#), [DyLight@549](#),  
[DyLight@649](#), [DyLight@680](#), [DyLight@800](#),  
[FITC](#), [HRP](#)

Rabbit Anti Mouse IgG (STAR9...) [FITC](#)

Goat Anti Mouse IgG (STAR77...) [HRP](#)

Rabbit Anti Mouse IgG (STAR12...) [RPE](#)

Goat Anti Mouse IgG (Fc) (STAR120...) [FITC](#), [HRP](#)

Rabbit Anti Mouse IgG (STAR8...) [DyLight@800](#)

Goat Anti Mouse IgG (STAR70...) [FITC](#)

Human Anti Mouse IgG1 (HCA036...) [HRP](#)

## Recommended Negative Controls

[MOUSE IgG1 NEGATIVE CONTROL \(MCA928\)](#)

<b>North &amp; South America</b>	Tel: +1 800 265 7376 Fax: +1 919 878 3751 Email: <a href="mailto:antibody_sales_us@bio-rad.com">antibody_sales_us@bio-rad.com</a>	<b>Worldwide</b>	Tel: +44 (0)1865 852 700 Fax: +44 (0)1865 852 739 Email: <a href="mailto:antibody_sales_uk@bio-rad.com">antibody_sales_uk@bio-rad.com</a>	<b>Europe</b>	Tel: +49 (0) 89 8090 95 21 Fax: +49 (0) 89 8090 95 50 Email: <a href="mailto:antibody_sales_de@bio-rad.com">antibody_sales_de@bio-rad.com</a>
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Printed on 18 Jan 2018

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