

Datasheet: MCA5765GA

**BATCH NUMBER 171005**

<b>Description:</b>	HAMSTER ANTI HIGH MOBILITY GROUP PROTEIN B1
<b>Specificity:</b>	HIGH MOBILITY GROUP PROTEIN B1
<b>Other names:</b>	HMGB1
<b>Format:</b>	Purified
<b>Product Type:</b>	Monoclonal Antibody
<b>Clone:</b>	HMG1-5H6
<b>Isotype:</b>	IgG
<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
Flow Cytometry	▪			
Western Blotting	▪			
Immunofluorescence	▪			

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

Mouse

### Species Cross Reactivity

Reacts with: Rat, Human, Hamster

**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

### Preparation

Purified IgG prepared by affinity chromatography on Protein G

### Buffer Solution

Phosphate buffered saline

<b>Preservative Stabilisers</b>	0.09% Sodium Azide (NaN <sub>3</sub> )
<b>Approx. Protein Concentrations</b>	IgG concentration 1.0mg/ml
<b>Immunogen</b>	Recombinant mouse HMGB1.
<b>External Database Links</b>	<p><b>UniProt:</b></p> <p><a href="#">P63158</a>    <a href="#">Related reagents</a></p> <p><a href="#">P63159</a>    <a href="#">Related reagents</a></p> <p><a href="#">P09429</a>    <a href="#">Related reagents</a></p> <p><b>Entrez Gene:</b></p> <p><a href="#">15289</a> Hmgb1    <a href="#">Related reagents</a></p> <p><a href="#">25459</a> Hmgb1    <a href="#">Related reagents</a></p> <p><a href="#">3146</a> HMGB1    <a href="#">Related reagents</a></p>
<b>Synonyms</b>	Hmg1, Hmg-1, HMG1
<b>RRID</b>	AB_10844211
<b>Specificity</b>	<p><b>Hamster anti High Mobility Group Protein B1 antibody, clone HMG1-5H6</b> specifically recognizes High mobility group protein B1 (HMGB1), a ubiquitously expressed nuclear DNA binding protein, and one of a newly emerging group of alarmins, which acts as a stabilizer of nucleosome formation, and facilitates transcription factor binding, by bending DNA.</p> <p>HMGB1 is one of the signature danger signals of endogenous cellular injury, and is released outside the cell by necrotic and inflammatory cells to act as a chemoattractant for immature dendritic cells (DCs), promoting their maturation. DCs can also secrete HMGB1, promoting proliferation and Th1 polarization of interacting T cells. Cellular injury resulting in necrosis, leads to passive HMGB1 release, and microbes or pro-inflammatory cytokines may later stimulate active release from APCs.</p> <p>HMGB1 is emerging as a prime specific marker and regulator of necrotic cell death, possibly through the PI3KC3-MEK-ERK pathway. It interacts directly with the autophagy protein Beclin-1, and binds to receptors, such as RAGE on endothelial cells, and Toll-like receptors on macrophages. Studies identifying microtubule-associated protein 1 light chain 3 (LC3) lipidation and redistribution, coupled with the accumulation of autophagosomes and autolysosomes, have shown an important role for HMGB1 release in sustaining autophagy. Studies have also shown that HMGB1 released after chemotherapy treatment is a critical regulator of autophagy, and a potential drug target for therapeutic interventions in leukemia.</p> <p>HMGB1 is increasingly recognized as an important protein in medical research. It is angiogenic and promotes cardiac stem cell growth and differentiation, it may act as an</p>

adjuvant or assist in tissue repair, and is also a prototypical damage-associated molecular pattern molecule (DAMP) which co-precipitates with CD24 and is associated with the hallmarks of cancer.

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<b>Flow Cytometry</b>	Use 10ul of the suggested working dilution to label 1x10 <sup>6</sup> cells in 100ul.
<b>Western Blotting</b>	MCA5765GA detects a band of approximately 30kDa in mouse NIH-3T3, rat NRK, hamster BHK, and HeLa cell lysates in the presence of 2ME, and bands of 30kDa (red) and 27kDa (ox) in the absence of 2ME.
<b>Further Reading</b>	1. Lange, S.S. <i>et al</i> (2009) HMGB1: the jack-of-all-trades protein is a master DNA repair mechanic. <a href="#">Mol Carcinog. 48: 571-80.</a>
<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.
<b>Guarantee</b>	12 months from date of despatch
<b>Health And Safety Information</b>	Material Safety Datasheet documentation #10040 available at: <a href="https://www.bio-rad-antibodies.com/SDS/MCA5765GA">https://www.bio-rad-antibodies.com/SDS/MCA5765GA</a> 10040
<b>Regulatory</b>	For research purposes only

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## Related Products

### Recommended Secondary Antibodies

Goat Anti Hamster IgG (STAR104...) [DyLight®550](#), [DyLight®650](#), [DyLight®800](#),  
[FITC](#)

Goat Anti Hamster IgG (STAR79...) [Biotin](#), [FITC](#), [HRP](#)

### Recommended Negative Controls

[HAMSTER \(ARMENIAN\) IgG NEGATIVE CONTROL \(MCA2356\)](#)

<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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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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