Datasheet: MCA5765GA

BATCH NUMBER 160721

Description:	HAMSTER ANTI HIGH MOBILITY GROUP PROTEIN B1
Specificity:	HIGH MOBILITY GROUP PROTEIN B1
Other names:	HMGB1
Format:	Purified
Product Type:	Monoclonal Antibody
Clone:	HMG1-5H6
Isotype:	IgG
Quantity:	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.

	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

Preservative Stabilisers	0.09% Sodium Azide (NaN_3)
Approx. Protein Concentrations	IgG concentration 1.0mg/ml
Immunogen	Recombinant mouse HMGB1.
External Database Links	**UniProt:** P63158 Related reagents P63159 Related reagents P09429 Related reagents **Entrez Gene:** 15289 Hmgb1 Related reagents 25459 Hmgb1 Related reagents 3146 HMGB1 Related reagents
Synonyms	Hmg1, Hmg-1, HMG1
RRID	AB_10844211

Specificity

Hamster anti High Mobility Group Protein B1 antibody, clone HMG1-5H6 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.

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.

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.

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

	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.
Flow Cytometry	Use 10ul of the suggested working dilution to label 1x10^6 cells in 100ul.
Western Blotting	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.
Further Reading	1. Lange, S.S. *et al* (2009) HMGB1: the jack-of-all-trades protein is a master DNA repair mechanic. Mol Carcinog. 48: 571-80.
Storage	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.
Guarantee	12 months from date of despatch
Health And Safety Information	Material Safety Datasheet documentation #10040 available at: https://www.bio-rad-antibodies.com/SDS/MCA5765GA 10040
Regulatory	For research purposes only

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)

North & South America Tel: +1 800 265 7376 Fax: +1 919 878 3751 Email: antibody_sales_us@bio-rad.com

Worldwide Tel: +44 (0)1865 852 700 Fax: +44 (0)1865 852 739 Email: antibody_sales_uk@bio-rad.com

Europe Tel: +49 (0) 89 8090 95 21 Fax: +49 (0) 89 8090 95 50 Email: antibody_sales_de@bio-rad.com

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

'M368370:200529'

Printed on 25 Mar 2023