

Datasheet: MCA6163GA

BATCH NUMBER 166406

Description:	MOUSE ANTI HUMAN C3a/C3a desArg
Specificity:	C3a/C3a desArg
Format:	Purified
Product Type:	Monoclonal Antibody
Clone:	2991
Isotype:	IgG1
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
ELISA	▪			
Western Blotting	▪			

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	Human
Product Form	Purified IgG - liquid
Preparation	Purified IgG prepared by affinity chromatography on Protein G from tissue culture supernatant
Buffer Solution	Phosphate buffered saline
Preservative Stabilisers	<0.1% Sodium Azide (NaN ₃)
Approx. Protein Concentrations	IgG concentration 0.1 mg/ml
Immunogen	Human C3a des-arg

**External Database
Links**

UniProt:

[P01024](#) [Related reagents](#)

Entrez Gene:

[718](#) C3 [Related reagents](#)

Synonyms

CPAMD1

Specificity

Mouse anti Human C3a/C3a desArg antibody, clone 2991, recognizes the neo-epitope of both human C3a and C3a desArg, with at least a 5x higher preference for C3a desArg. Neo-epitopes are regions on native proteins that are only exposed and detectable on activated proteins. As such, detection of these neo-epitopes can be used for the direct quantification of the activation of different steps in the complement cascade.

C3 is a 185 kDa glycoprotein consisting of an alpha and beta chain and is the key component of the complement activation pathways. There are 3 activation pathways within the complement system; the classical, lectin and alternative pathways. All three pathways converge on C3; resulting in its cleavage to anaphylatoxin C3a and opsonin C3b ([Dunkelberger & Song 2010](#)). C3a is a ligand to the seven-transmembrane coupled receptor C3aR. Upon binding to this receptor C3a elicits an anti-inflammatory response, by attenuating neutrophil mobilization into circulation after injury ([Mathern & Heeger 2015](#)). C3a is however rapidly cleaved by serum carboxypeptidases at the C-terminal arginine to the more stable C3a desArg. C3a desArg has no detectable activity with C3aR, but there is some evidence to suggest that it can bind to C5aR2, a receptor of C5a as well as C5L2 ([Kalant et al. 2003](#), [Zhang et al. 2017](#)). Measurement of C3a desArg has been used to examine the level of complement activation in test samples.

Storage

This product is shipped at ambient temperature. It is recommended to aliquot and store at -20°C on receipt. When thawed, aliquot the sample as needed. Keep aliquots at 2-8°C for short term use (up to 4 weeks) and store the remaining aliquots at -20°C.

Avoid repeated freezing and thawing as this may denature the antibody. Storage in frost-free freezers is not recommended.

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/MCA6163GA>
10040

Regulatory

For research purposes only

Related Products

Recommended Secondary Antibodies

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

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

Goat Anti Mouse IgG (STAR70...) [FITC](#)
Goat Anti Mouse IgG IgA IgM (STAR87...) [Alk. Phos.](#), [HRP](#)
Rabbit Anti Mouse IgG (STAR9...) [FITC](#)
Goat Anti Mouse IgG (STAR76...) [RPE](#)
Goat Anti Mouse IgG (H/L) (STAR117...) [Alk. Phos.](#), [DyLight®488](#), [DyLight®550](#),
[DyLight®650](#), [DyLight®680](#), [DyLight®800](#),
[FITC](#), [HRP](#)
Rabbit Anti Mouse IgG (STAR13...) [HRP](#)
Goat Anti Mouse IgG (Fc) (STAR120...) [FITC](#), [HRP](#)

Recommended Negative Controls

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

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
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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
'M410643:221028'

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