

Datasheet: MCA2260

**BATCH NUMBER 180730**

<b>Description:</b>	RAT ANTI RITUXIMAB
<b>Specificity:</b>	RITUXIMAB
<b>Other names:</b>	MabThera , Rituxan
<b>Format:</b>	Purified
<b>Product Type:</b>	Monoclonal Antibody
<b>Clone:</b>	MB2A4
<b>Isotype:</b>	IgG2a
<b>Quantity:</b>	0.2 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	▪			50 ug/ml
Immunohistology - Frozen			▪	
Immunohistology - Paraffin			▪	
ELISA	▪			

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.

<b>Product Form</b>	Purified IgG - liquid
<b>Preparation</b>	Purified IgG prepared by affinity chromatography on Protein G from tissue culture supernatant
<b>Buffer Solution</b>	TRIS 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>	F(ab) <sub>2</sub> fragment of Rituximab
<b>RRID</b>	AB_323787
<b>Fusion Partners</b>	Spleen cells from immunised rats were fused with cells of the NS-1 mouse myeloma cell line
<b>Specificity</b>	<p><b>Rat Anti-Rituximab Antibody, clone MB2A4</b>, is an anti-idiotypic antibody that specifically recognizes the monoclonal antibody drug rituximab. The antibody can be used to measure the levels of rituximab and biosimilar products in bioanalytical assays. Rat Anti-Rituximab Antibody, clone MB2A4, is specific for rituximab and does not recognize other CD20 antibodies. Clone MB2A4 has been used in ELISA to monitor the levels of rituximab in patient serum following therapy (<a href="#">Cragg et al. 2004</a> and <a href="#">Hampson et al. 2010</a>).</p> <p>Clone MB2A4 has been used to detect rituximab bound to the surface of the Raji B cell line, however detection of rituximab bound in vivo to B-CLL cells has not been demonstrated. It is possible that complement deposition on rituximab opsonised cells inhibits binding of the Anti-Rituximab Antibody to cell bound rituximab (<a href="#">Beum et al. 2004</a>). Inhibition experiments carried out with Daudi cells demonstrated that this antibody is inhibitory at a ratio of 5:1 antibody:rituximab, but does not inhibit rituximab binding to CD20 at a ratio of 1:1.</p> <p>Rituximab (reference product branded as Rituxan) is a chimeric mouse/human monoclonal antibody approved for the treatment of certain autoimmune diseases and cancer, including non-Hodgkin's lymphoma, chronic lymphocytic leukemia and rheumatoid arthritis. The antibody is specific for the cell surface protein CD20, which is widely expressed on B cells. Through three different mechanisms of action it eliminates B cells from the body, enabling the development of a new population of healthy B cells.</p> <p><a href="#">View a summary of all Anti-Rituximab Antibodies.</a></p>
<b>Flow Cytometry</b>	Use 10ul of the suggested working dilution to label 10 <sup>6</sup> cells in 100ul.
<b>ELISA</b>	This product may be used in a direct ELISA or as a detection reagent, when conjugated to HRP, in a sandwich ELISA together with <a href="#">HCA186</a> as the capture reagent. Protocol: <a href="#">PK bridging ELISA to measure free drug</a>
<b>References</b>	<ol style="list-style-type: none"> <li>1. Cragg, M. S. <i>et al.</i> (2004) A new anti-idiotypic antibody capable of binding rituximab on the surface of lymphoma cells. <a href="#">Blood. 104:2540-2</a></li> <li>2. Cragg, M.S. <i>et al.</i> (2004) Apparent modulation of CD20 by rituximab: an alternative explanation. <a href="#">Blood. 103 (10): 3989-90; author reply 3990-1.</a></li> <li>3. Beum, P.V. <i>et al.</i> (2004) Complement activation and C3b deposition on rituximab-opsonized cells substantially blocks binding of phycoerythrin-labeled anti-mouse IgG probes to rituximab. <a href="#">J Immunol Methods. 294 (1-2): 37-42.</a></li> <li>4. Hampson, G. <i>et al.</i> (2010) Validation of an ELISA for the determination of rituximab pharmacokinetics in clinical trials subjects. <a href="#">J Immunol Methods. 360 (1-2): 30-8.</a></li> <li>5. Blasco, H. <i>et al.</i> (2007) Evaluation of a peptide ELISA for the detection of rituximab in serum. <a href="#">J Immunol Methods.325: 127-39.</a></li> </ol>

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17. Komori, M. *et al.* (2016) Insufficient disease inhibition by intrathecal rituximab in progressive multiple sclerosis [Annals of Clinical and Translational Neurology. Feb 1. \[Epub ahead of print\]](#)
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**Storage**

Store at +4°C or at -20°C if preferred.

This product should be stored undiluted.

Storage in frost-free freezers is not recommended. 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>Guarantee</b>	18 months from date of despatch
<b>Acknowledgements</b>	Rituxan is a registered trademark of Biogen Idec/Genentech in the USA. MabThera is a registered trademark of Roche in Europe.
<b>Health And Safety Information</b>	Material Safety Datasheet documentation #10057 available at: <a href="https://www.bio-rad-antibodies.com/SDS/MCA2260">https://www.bio-rad-antibodies.com/SDS/MCA2260</a> 10057
<b>Regulatory</b>	For research purposes only

## Related Products

### Recommended Secondary Antibodies

Rabbit Anti Rat IgG (STAR20...) [RPE](#)

Rabbit Anti Rat IgG (STAR17...) [FITC](#)

Goat Anti Rat IgG (STAR69...) [FITC](#)

Goat Anti Rat IgG (STAR73...) [RPE](#)

### Recommended Useful Reagents

[HUMAN ANTI RITUXIMAB \(HCA061\)](#)

[HUMAN ANTI RITUXIMAB \(HCA062\)](#)

[HUMAN ANTI RITUXIMAB \(HCA186\)](#)

<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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