Datasheet: MCA2260G

Description:	RAT ANTI RITUXIMAB
Specificity:	RITUXIMAB
Other names:	MabThera , Rituxan
Format:	Purified
Product Type:	Monoclonal Antibody
Clone:	MB2A4
Isotype:	IgG2a
Quantity:	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.

	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.

Product Form	Purified IgG - liquid
Preparation	Purified IgG prepared by affinity chromatography on Protein G from tissue culture supernatant
Buffer Solution	TRIS buffered saline
Preservative Stabilisers	< 0.1% Sodium Azide (NaN_3)
Approx. Protein Concentrations	IgG concentration 1.0 mg/ml
Immunogen	$F(ab)_2$ fragment of Rituximab

Fusion Partners	Spleen cells from immunised rats were fused with cells of the NS-1 mouse myeloma cell line
Specificity	**Rat Anti-Rituximab Antibody, clone MB2A4,** is an anti-idiotypic antibody that 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 also recognizes ocrelizumab, a second-generation humanized anti-CD20 antibody that binds to an epitope on CD20 that is identical or overlapping with the rituximab epitope. Clone MB2A4 has been used in ELISA to monitor the levels of rituximab in patient serum following therapy (Cragg *et al*. 2004 and Hampson *et al*. 2010). 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 (Beum *et al*. 2004). 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. 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. View a summary of all Anti-Rituximab Antibodies.
Flow Cytometry	Use 10µl of the suggested working dilution to label 10^6 cells in 100µl
ELISA	Rat anti Rituximab antibody, clone MB2A4 may be used in a direct ELISA or as a detection reagent, when conjugated to HRP, in a sandwich ELISA together with HCA186 as the capture reagent. Protocol: PK bridging ELISA to measure free drug
References	1. Cragg, M. S. *et al*. (2004) A new anti-idiotype antibody capable of binding rituximab on the surface of lymphoma cells. Blood. 104:2540-2 2. Cragg, M.S. *et al.* (2004) Apparent modulation of CD20 by rituximab: an alternative explanation. Blood. 103 (10): 3989-90; author reply 3990-1. 3. Pers, J.O. *et al.* (2007) BAFF-modulated repopulation of B lymphocytes in the blood and salivary glands of rituximab-treated patients with Sjögren's syndrome. Arthritis Rheum. 56: 1464-77. 4. Hampson, G. *et al.* (2010) Validation of an ELISA for the determination of rituximab pharmacokinetics in clinical trials subjects. J Immunol Methods. 360 (1-2): 30-8. 5. Blasco, H. *et al.* (2007) Evaluation of a peptide ELISA for the detection of rituximab in serum. J Immunol Methods.325: 127-39. 6. Daydé, D. *et al.* (2009) Tumor burden influences exposure and response to rituximab: pharmacokinetic-pharmacodynamic modeling using a syngeneic bioluminescent murine model expressing human CD20. Blood. 113: 3765-72.

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20. Zhang, Y. *et al.* (2013) Stability of stock and diluted rituximab. Am J Health Syst Pharm. 70 (5): 436-8.
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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

Acknowledgements

Rituxan is a trademark of Biogen Idec/Genentech in the USA.
MabThera is a trademark of Roche in Europe.

Health And Safety Information	Material Safety Datasheet documentation #10057 available at: https://www.bio-rad-antibodies.com/SDS/MCA2260G 10057
Regulatory	For research purposes only

Related Products

Recommended Secondary Antibodies

Rabbit Anti Rat IgG (STAR20...) RPE
Goat Anti Rat IgG (STAR69...) FITC
Goat Anti Rat IgG (STAR73...) RPE
Rabbit Anti Rat IgG (STAR17...) FITC

Recommended Useful Reagents

HUMAN ANTI RITUXIMAB (HCA061)
HUMAN ANTI RITUXIMAB (HCA062)
HUMAN ANTI RITUXIMAB (HCA186)

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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

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