

AM05879HR-N**Monoclonal Antibody to Rituximab - HRP**

Alternate names:	MabThera, Rituxan
Quantity:	0.1 mg
Concentration:	1.0 mg/ml
Background:	Rituximab is a therapeutic reagent directed against the human CD20 cell surface antigen.
Host / Isotype:	Rat / IgG2a
Recommended Isotype Controls:	SM15P, SM15PX
Clone:	MB2 A4
Immunogen:	F(ab)2 fragment of Rituximab
Format:	State: Liquid purified IgG fraction from Tissue Culture Supernatant Purification: Affinity chromatography on Protein G Buffer System: PBS Preservatives: 0.01% Thiomersal Stabilizers: HRP stabilizer (containing no Azide, no Mercury, no BSA or other Bovine material, but weak concentrations of Rabbit antibodies). Label: HRP
Applications:	ELISA: 1/20000-1/20000. Other applications not tested. Optimal dilutions are dependent on conditions and should be determined by the user.
Specificity:	This antibody specifically recognises the idiotypic determinants expressed by the Rituximab humanised monoclonal antibody. This antibody does not recognise other CD20 antibodies. It 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 (3). Clone MB2A4 has been used in ELISA assays to monitor the levels of rituximab in patient serum following therapy (4,5).
Storage:	Store undiluted at 2-8°C. DO NOT FREEZE! Shelf life: one year from despatch.
General Readings:	1. Bayne, M. et al. (2003) Phase I/II study of fractionated radioimmunotherapy in relapsed low grade non Hodgkin lymphoma. Br. J. Cancer. 88 : S38. 2. Cragg MS, Bayne MC, Illidge TM, Valerius T, Johnson PW, Glennie MJ. Apparent modulation of CD20 by rituximab: an alternative explanation. Blood. 2004 May 15;103(10):3989-90; author reply 3990-1. PubMed PMID: 15121717. 3. Beum PV, Kennedy AD, Li Y, Pawluczko AW, Williams ME, Taylor RP. Complement activation and C3b deposition on rituximab-opsonized cells

- substantially blocks binding of phycoerythrin-labeled anti-mouse IgG probes to rituximab. *J Immunol Methods*. 2004 Nov;294(1-2):37-42. PubMed PMID: 15604014.
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5. Blasco H, Lalmanach G, Godat E, Maurel MC, Canepa S, Belghazi M, et al. Evaluation of a peptide ELISA for the detection of rituximab in serum. *J Immunol Methods*. 2007 Aug 31;325(1-2):127-39. Epub 2007 Jul 17. PubMed PMID: 17651747.
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7. Aung T, Chapuy B, Vogel D, Wenzel D, Oppermann M, Lahmann M, et al. Exosomal evasion of humoral immunotherapy in aggressive B-cell lymphoma modulated by ATP-binding cassette transporter A3. *Proc Natl Acad Sci U S A*. 2011 Sep 13;108(37):15336-41. doi: 10.1073/pnas.1102855108. Epub 2011 Aug 25. PubMed PMID: 21873242.
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10. Kagan L, Turner MR, Balu-Iyer SV, Mager DE. Subcutaneous absorption of monoclonal antibodies: role of dose, site of injection, and injection volume on rituximab pharmacokinetics in rats. *Pharm Res*. 2012 Feb;29(2):490-9. doi: 10.1007/s11095-011-0578-3. Epub 2011 Sep 2. PubMed PMID: 21887597.
11. Kagan L, Mager DE. Mechanisms of subcutaneous absorption of rituximab in rats. *Drug Metab Dispos*. 2013 Jan;41(1):248-55. doi: 10.1124/dmd.112.048496. Epub 2012 Nov 5. PubMed PMID: 23129212.
12. Cragg MS, Bayne MB, Tutt AL, French RR, Beers S, Glennie MJ, et al. A new anti-idiotypic antibody capable of binding rituximab on the surface of lymphoma cells. *Blood*. 2004 Oct 15;104(8):2540-2. Epub 2004 Jun 22. PubMed PMID: 15213098.

Pictures:

Detection of Rituximab in direct ELISA: Rituximab was used as the coating reagent followed by rat anti-Rituximab antibody Cat.-No. AM05879HR-N as the detection antibody.

