

Datasheet: MCA1642FT

BATCH NUMBER 172799

Description:	RAT ANTI HUMAN CD52:FITC
Specificity:	CD52
Other names:	CAMPATH-1
Format:	FITC
Product Type:	Monoclonal Antibody
Clone:	YTH34.5
Isotype:	IgG2b
Quantity:	25 µg

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	▪			Neat

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

Species Cross Reactivity

Reacts with: Rhesus Monkey

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 conjugated to Fluorescein Isothiocyanate Isomer 1 (FITC) - liquid

Max Ex/Em

Fluorophore	Excitation Max (nm)	Emission Max (nm)
FITC	490	525

Preparation

Purified IgG prepared by affinity chromatography on Protein A from tissue culture supernatant

Buffer Solution	Phosphate buffered saline
Preservative Stabilisers	0.09% sodium azide (NaN ₃) 1% bovine serum albumin
Approx. Protein Concentrations	IgG concentration 0.1 mg/ml
Immunogen	Human lymphocytes
External Database Links	<p>UniProt: P31358 Related reagents</p> <p>Entrez Gene: 1043 CD52 Related reagents</p>
Synonyms	CDW52, HE5
RRID	AB_2075608
Specificity	<p>Rat anti Human CD52 antibody, clone YTH34.5 recognizes the human CD52 antigen, also known as CAMPATH-1. The CD52 antigen is a remarkably small but heavily glycosylated peptide attached to the cell surface membrane via a GPI link (Xia et al. 1991).</p> <p>The apparent molecular mass of the native antigen on SDS-PAGE is 25-29 kDa, considerably reduced following N-glycanase treatment (Rowan et al. 1998).</p> <p>CD52 is expressed at high density by lymphocytes, monocytes, eosinophils, thymocytes and macrophages. It is expressed by most lymphoid derived malignancies, although expression on myeloma cells is variable.</p> <p>Humanized versions of CAMPATH-1 specific antibodies are currently in clinical trials for the treatment of a range of lymphoid malignancies (Dearden et al. 2002; Pettitt et al. 2012).</p>
Flow Cytometry	Use 10µl of the suggested working dilution to label 1 x 10 ⁶ cells in 100µl
References	<ol style="list-style-type: none"> 1. Klangsinrikul, P. <i>et al.</i> (2002) Campath-1G causes rapid depletion of circulating host dendritic cells (DCs) before allogeneic transplantation but does not delay donor DC reconstitution. Blood. 99: 2586-91. 2. Ratzinger, G. <i>et al.</i> (2003) Differential CD52 expression by distinct myeloid dendritic cell subsets: implications for alemtuzumab activity at the level of antigen presentation in allogeneic graft-host interactions in transplantation. Blood. 101: 1422-9. 3. Zand, M.S. <i>et al.</i> (2005) A renewable source of donor cells for repetitive monitoring of T- and B-cell alloreactivity. Am J Transplant. 5: 76-86. 4. Westermann, J. <i>et al.</i> (2005) CD52 is not a promising immunotherapy target for most

- patients with multiple myeloma. [Int J Hematol. 82 \(3\): 248-50.](#)
5. Gopcsa, L. *et al.* (2005) Extensive flow cytometric characterization of plasmacytoid dendritic cell leukemia cells. [Eur J Haematol. 75: 346-51.](#)
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 7. Golay, J. *et al.* (2006) The sensitivity of acute lymphoblastic leukemia cells carrying the t(12;21) translocation to campath-1H-mediated cell lysis. [Haematologica. 91: 322-30.](#)
 8. Miles, R.R. *et al.* (2007) Immunophenotypic identification of possible therapeutic targets in paediatric non-Hodgkin lymphomas: a children's oncology group report. [Br J Haematol. 138: 506-12.](#)
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 11. Reimer, P. *et al.* (2009) Autologous stem-cell transplantation as first-line therapy in peripheral T-cell lymphomas: results of a prospective multicenter study. [J Clin Oncol. 27: 106-13.](#)
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 15. Bisig, B. *et al.* (2013) CD30-positive peripheral T-cell lymphomas share molecular and phenotypic features. [Haematologica. 98 \(8\): 1250-8.](#)
 16. Paulus, A. *et al.* (2015) Immunophenotyping of Waldenströms macroglobulinemia cell lines reveals distinct patterns of surface antigen expression: potential biological and therapeutic implications. [PLoS One. 10 \(4\): e0122338.](#)
 17. Hotta, R. *et al.* (2016) CD52-Negative NK Cells Are Abundant in the Liver and Less Susceptible to Alemtuzumab Treatment. [PLoS One. 11 \(8\): e0161618.](#)
 18. Buckstein, R. *et al.* (2016) Alemtuzumab and CHOP Chemotherapy for the Treatment of Aggressive Histology Peripheral T Cell Lymphomas: A Multi-Center Phase I Study. [Clin Lymphoma Myeloma Leuk. 16 \(1\): 18-28.e4.](#)
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 20. Suwandi, J.S. *et al.* (2020) Multidimensional analyses of proinsulin peptide-specific regulatory T cells induced by tolerogenic dendritic cells. [J Autoimmun. 107: 102361.](#)

Further Reading

1. Salisbury JR *et al.* (1994) Immunohistochemical analysis of CDw52 antigen expression in non-Hodgkin's lymphomas. [J Clin Pathol. 47 \(4\): 313-7.](#)
 2. Hale G *et al.* (1998) Improving the outcome of bone marrow transplantation by using CD52 monoclonal antibodies to prevent graft-versus-host disease and graft rejection. [Blood. 92 \(12\): 4581-90.](#)
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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. This product is photosensitive and should be protected from light.

Guarantee 12 months from date of despatch

Health And Safety Information Material Safety Datasheet documentation #10041 available at: <https://www.bio-rad-antibodies.com/SDS/MCA1642FT>

Regulatory For research purposes only

Related Products

Recommended Negative Controls

[RAT IgG2b NEGATIVE CONTROL:FITC \(MCA6006F\)](#)

Recommended Useful Reagents

[HUMAN SEROBLOCK \(BUF070A\)](#)

[HUMAN SEROBLOCK \(BUF070B\)](#)

Product inquiries: www.bio-rad-antibodies.com/technical-support

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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