RayBiotech, Inc.

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Certificate of Analysis and Data Sheet

Rat Anti-Human CD52, low endotoxin

With HRP-conjugated Secondary Antibody

Catalog No.	Target Species	Isotype
DS-MB-03658	Human	IgG2b

Preparation

Purified IgG prepared by affinity chromatography on Protein A from tissue culture supernatant
Synonyms: CDW52, HE5

Formulation

Product Form: Purified IgG - liquid
Product Type: Monoclonal Antibody
Buffer Solution: Phosphate buffered saline
Preservative Stabilizers: None present
Approx. Protein Concentrations: IgG concentration 1.0 mg/ml

Specificity

This product reacts with the human CD52 antigen, also known as CAMPATH-1. The CD52 antigen is a remarkably small peptide that is heavily glycosylated, and attached to the cell surface membrane via a GPI link. The apparent molecular mass of the antigen on SDS-PAGE is 25-29kD.
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.
Humanized versions of CAMPATH-1 specific antibodies are currently in clinical trials for the treatment of a range of lymphoid malignancies.
Species Cross Reactivity: Reacts with Rhesus Monkey
N.B. Antibody reactivity and working conditions may vary between species.

Storage

Store at -20^{o}C only. 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.
Shelf Life: 18 months from date of dispatch.

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Applications

Options / Functions	YES	NO	Not determined	Recommended Work dilution or concentration
Flow Cytometry (1)	•			1/50 - 1/100
Immunohistology - Frozen	•			
Immunohistology – Paraffin (2)	•			
Immunohistology - Resin	•			
ELISA	•			
Immunoprecipitation	•			
Western Blotting	•			
Cytotoxic Assays (3)	•			50ug/ml

Note: Other applications have not been tested. Optimal dilutions should be determined.
(1) Use 10ul of the suggested working dilution to label 1 x 10^6 cells in 100ul.
(2) This product does not require protein digestion pretreatment of paraffin section. However enhanced results may be seen using Trypsin protein digestion. Histology Positive Control Tissue: Tonsil.
(3) Use human serum as complement source

Secondary Antibody Applications

Options / Functions	YES	NO	Not determined	Recommended Work dilution or concentration
Immunoassay (ELISA, Western blot)	•			1:5000-1:10000

References

1. 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: 4581-4590.
2. Salisbury, J.R. *et al*. (1994) Immunohistochemical analysis of CDw52 antigen expression in non-hodgkins lymphomas. J. Clin. Path. 47: 313-317.

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3. Rodig, S. *et al*. (2006) Heterogeneous CD52 expression among hematologic neoplasms: implications for the use of alemtuzumab (CAMPATH-1H). Clin. Cancer Res. 12: 7174-7179.
4. Haniffa, M. *et al.* (2009) Differential rates of replacement of human dermal dendritic cells and macrophages during hematopoietic stem cell transplantation. J Exp Med. 206: 371-85.
5. Ratzinger, G. *et al.* (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.
6. Hu, Y. *et al.* (2009) Investigation of the mechanism of action of alemtuzumab in a human CD52 transgenic mouse model. Immunology. 128: 260-70.
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.