RayBiotech, Inc.

3607 Parkway Lane suite 200
Norcross,GA 30092
Tel: 770-729-2992, 1-888-494-8555
Fax: 770-206-2393
Website: www.raybiotech.com
Email: info@raybiotech.com

Certificate of Analysis and Data Sheet

Rat Anti Mouse CD204:Biotin

Catalog No.	Target Species	Isotype
DS-MB-03764	Mouse	IgG2b

Preparation

Immunogen: RAW264 cell line
Purification: Purified IgG prepared by affinity chromatography on Protein G
Fusion Partners: Spleen cells from immunized AO rats were fused with cells of the Y3 rat myeloma cell line.

Formulation

Product Type: Monoclonal Antibody
Product Form: Purified IgG conjugated to Biotin - liquid
Buffer Solution: Phosphate buffered saline pH7.4
Preservative Stabilizers: 0.09%Sodium Azide, 1% Bovine Serum Albumin
Approx. Protein Concentration: IgG concentration 0.1 mg/ml

Specificity

DS-MB-03764 recognizes the murine scavenger receptor class A (SRA), type I and II, also known as CD204. CD204 is expressed by tissue macrophages and functions both as an endocytic receptor for lipoproteins and as an adhesion receptor for macrophages binding to ligand rich tissues e.g. atherosclerotic lesions. DS-MB-03764 inhibits the uptake of acetylated low-density lipoproteins and also inhibits divalent cation independent adhesion (1).
* Recent research shows that DS-MB-03764 recognizes an epitope within SRA that is polymorphic in the SRA from C57BL/6 mice. DS-MB-03764 is therefore unsuitable for use with the C57BL/6 mouse strain (7).

Storage

Store at +4^{o}C or at -20^{o}C if preferred.
Storage in frost-free freezers is not recommended.
This product should be stored undiluted. 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 shipment

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Applications

Table Summary of antibody applications and working conditions

Options / Functions	YES	NO	Not determined	Recommended Work dilution or concentration
ELISA			•	
Western Blotting			•	
IHC - Paraffin		•		
IHC - Frozen			•	
IHC - Resin		•		
Flow Cytometry (1)	•			Neat
Immunofluorescence			•	

Note: Other applications are not tested yet. Optimal dilutions should be determined by each laboratory for each application. (1) Use 10ul of the suggested working dilution to label 10^6 cells in 100ul. The Fc region of monoclonal antibodies may bind non-specifically to cells expressing low affinity Fc receptors. This may be reduced by using a blocking step.

References

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3. Hughes, D.A.*et al*. (1995) Murine Macrophage Scavenger Receptor: *in vivo* expression and function as receptor for macrophage adhesion in lymphoid and non-lymphoid organs. Eur. J. Immunol. 25: 466-473.
4. Bell, M.D.*et al*. (1994) Upregulation of the macrophage scavenger receptor in response to different forms of injury in the CNS. J. Neurocytol. 23: 605-613.
5. Hughes, D.A. *et al*. (1994) Murine Macrophage Scavenger Receptor: Adhesion function and Expression. Imm. Letts. 43: 7-14.
6. Rosen, H. and Hughes, D.A. (1995) Assays of Myeloid Cell Function: Migration and adhesion *in vivo*. Weir Handbook of Experimental Immunology. London, Blackwell Scientific Publications. 5th, ed. In Press.
7. Daugherty, A. *et al*. (2000) Polymorphism of class A scavenger receptors in C57BL/6 mice. J. Lipid Res 41: 1568 - 1577.