



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

MOUSE ANTI RAT CD54:FITC

With HRP-conjugated Secondary Antibody

Catalog No.	Species	Isotype
DS-MB-00819	Rat	IgG1

Preparation

Preparation: Purified IgG prepared by affinity chromatography on Protein G from tissue culture supernatant

Immunogen: Rat Ax cells (a HEV derived cell line).

Fusion Partners: Spleen cells from immunized BALB/c mice were fused with cells from the PA1 mouse myeloma cell line.

Specificity

Recognizes the rat CD54 cell surface antigen, also known as intercellular adhesion molecule-1 (ICAM-1), a 90kD adhesion molecule belonging to the immunoglobulin superfamily.

CD54 is a cell surface ligand of the lymphocyte integrin, LFA-1 and is known to play an important role in various cell-cell interactions in the immune system. Recent studies suggest that cross-linking of ICAM-1 using clone 1A29 induces calcium signalling (3).

Formulation

Product Type: Monoclonal Antibody

Product Form: Purified IgG conjugated to Fluorescein Isothiocyanate Isomer 1 (FITC) - liquid

Buffer Solution: Phosphate buffered saline pH7.2

Preservative Stabilizers 0.09% Sodium Azide, 1% Bovine Serum Albumin

Approx. Protein Concentrations: IgG concentration 0.5 mg/ml

Storage

18 months from date of dispatch.

Store at +4°C or at -20°C if preferred.

This product should be stored undiluted. Storage in frost free freezers is not recommended. **This product is photosensitive and should be protected from light.**

Avoid repeated freezing and thawing as this may denature the antibody. Should this product contain a precipitate we recommend microcentrifugation before use.

**The products are furnished for LABORATORY RESEARCH USE ONLY.
Not for diagnostic or therapeutic use.**



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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			.	
Immunohistology - frozen			.	
Immunohistology - paraffin			.	
Immunohistology - resin			.	
Immunoprecipitation			.	
Flow Cytometry(*)	.			1/25 - 1/100

Note: Other applications are not tested yet. Optimal dilutions should be determined by each laboratory for each application.

(*)Use 10ul of the suggested working dilution to label 106 cells in 100ul.

Secondary Antibody Applications

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

Reference

1. Tamatani, T. and Miyasaka, M. (1990) Identification of monoclonal antibodies reactive with the rat homologue of ICAM-1, and evidence for a differential involvement of ICAM-1 in the adherence of resting versus activated lymphocytes to high endothelial cells. *Int. Immunol.* 2: 165.
2. Tamatani, T. et al. (1991) Molecular mechanisms underlying lymphocyte recirculation. II. Differential regulation of LFA-1 in interaction between lymphocytes and high endothelial cells. *Eur. J. Immunol.* 21: 855-858.
3. Etienne, S. et al. (2000) ICAM-1 coupled cytoskeletal rearrangements and transendothelial lymphocyte migration involve intracellular calcium signalling in brain endothelial cell lines. *J. Immunol.* 165: 3375-3383.

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