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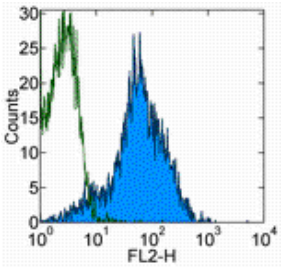
Product Information

Contents: Phycoerythrin (PE) anti-mouse CD54 (ICAM-1)
Catalog Number: 12-0542
Sizes: 50 ug, 100 ug, 200 ug
Formulation: Phosphate buffer pH 7.2, 150 mM NaCl, 0.09% NaN_3
Storage Conditions: Store at 4°C.
DO NOT FREEZE.
LIGHT-SENSITIVE MATERIAL.
Clone: eBioKAT-1 (KAT-1, KAT1)
Isotype: Rat IgG2a, κ



Staining of C57Bl/6 splenocytes with 0.06 µg of PE Rat IgG2a Iso Cntrl (cat. 12-4321) (open histogram) or 0.06 µg of PE anti-mouse CD54 (KAT-1) (colored histogram). Cells in the lymphocyte gate were used for analysis.

Available Formats of This Product				
Cat. No.	Format	Excite (nm)	Emit (nm)	Reported Applications
12-0542	Anti-Mouse CD54 (ICAM-1) PE	488 nm	575 nm	FC
14-0542	Anti-Mouse CD54 (ICAM-1) Purified	N/A	N/A	FA FC IHC (F) IHC (FFPE) IP
16-0542	Anti-Mouse CD54 (ICAM-1) Functional Grade* Purified	N/A	N/A	FA FC IHC (F) IP

*Functional Grade™ (FG™) Purified: Azide-free, sterile-filtered, and endotoxin < 0.001 ng/µg (unless otherwise noted).
*Functional Grade™ (FG™) Biotin: Azide-free, sterile-filtered, and endotoxin < 0.05 ng/µg.
Purified: Contains azide, not sterile-filtered, and not endotoxin tested.

Flow Cytometry Product Notes:
Test Sizes: To accommodate multicolor flow cytometry, eBioscience is in the process of reducing test size volumes from 20 µl to 5 µl. Please check your antibody vial for the recommended test size.
Fluorochrome Replacements: eBioscience is in the process of replacing all Pacific Blue® and APC-Alexa Fluor® 750 conjugated products with eFluor™ 450 and APC-eFluor™ 780 conjugated products, respectively.

Custom Product Requests
Need a custom product? Download the Custom Product Request Form and submit completed form to customs@ebioscience.com.

Questions? Please consult our answers to frequently asked questions at http://www.ebioscience.com/faq.

Description

The eBioKAT-1 monoclonal antibody reacts with mouse CD54 (ICAM-1), which is a 95 kDa member of the immunoglobulin superfamily. CD54 is expressed at low levels on leukocytes and high endothelial venules, and expression increases in response to inflammatory cytokines. ICAM-1 binds to LFA-1 and this interaction is required for the transendothelial migration of T cells. ICAM-1-deficient mice are viable, however the migration of leukocytes to sites of inflammation is reduced leading to impaired immune and inflammatory responses. Based on the regulated expression of ICAM-1, it has been suggested that ICAM-1 may increase leukocyte extravasation at sites of inflammation, whereas the constitutively high expression of ICAM-2 mediates leukocyte traffic into non-inflamed tissue. The eBioKAT-1 monoclonal antibody recognizes a different epitope than the YN1/1.7.4 monoclonal antibody.

Applications Reported

For research use only, not for diagnostic or therapeutic use. This eBioKAT-1 (KAT-1, KAT1) antibody has been reported for use in flow cytometric analysis.

Applications Tested

This eBioKAT-1 (KAT-1, KAT1) antibody has been tested by flow cytometric analysis of mouse splenocytes. This can be used at less than

or equal to 0.125 µg per million cells in a 100 µl total staining volume. It is recommended that the antibody be carefully titrated for optimal performance in the assay of interest.

References

Lehmann JC, Jablonski-Westrich D, Haubold U, Gutierrez-Ramos JC, Springer T, Hamann A. Overlapping and selective roles of endothelial intercellular adhesion molecule-1 (ICAM-1) and ICAM-2 in lymphocyte trafficking. J Immunol. 2003 Sep 1;171(5):2588-93. (KAT-1, FA, PubMed)

Arai K, Sunamura M, Wada Y, Takahashi M, Kobari M, Kato K, Yagita H, Okumura K, Matsuno S. Preventing effect of anti-ICAM-1 and anti-LFA-1 monoclonal antibodies on murine islet allograft rejection. Int J Pancreatol. 1999 Aug;26(1):23-31.

Kasper M, Koslowski R, Luther T, Schuh D, Müller M, Wenzel KW. Immunohistochemical evidence for loss of ICAM-1 by alveolar epithelial cells in pulmonary fibrosis. Histochem Cell Biol. 1995 Nov;104(5):397-405. (KAT-1, IHC paraffin)

Seko Y, Matsuda H, Kato K, Hashimoto Y, Yagita H, Okumura K, Yazaki Y. Expression of intercellular adhesion molecule-1 in murine hearts with acute myocarditis caused by coxsackievirus B3. J Clin Invest. 1993 Apr;91(4):1327-36. (KAT-1, FA, PubMed)

Related Products

Cat. 11-0541 FITC anti-mouse CD54 (ICAM-1) (clone YN1/1.7.4)
Cat. 12-0541 PE anti-mouse CD54 (ICAM-1) (clone YN1/1.7.4)
Cat. 13-0541 Biotin anti-mouse CD54 (ICAM-1) (clone YN1/1.7.4)
Cat. 14-0541 Affinity Purified anti-mouse CD54 (ICAM-1) (clone YN1/1.7.4)
Cat. 16-0541 Functional Grade Purified anti-mouse CD54 (ICAM-1) (clone YN1/1.7.4)
Cat. 12-4321 PE Rat IgG2a Isotype Control