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Product datasheet for SM252A

Cd2 Mouse Monoclonal Antibody [Clone ID: OX-34]

Product data:

Product Type:	Primary Antibodies
Clone Name:	OX-34
Applications:	FC, IHC, IP
Recommended Dilution:	Immunohistochemistry on frozen and paraffin sections. Flow Cytometry.
Reactivity:	Rat
Host:	Mouse
Isotype:	IgG2a
Clonality:	Monoclonal
Immunogen:	T blasts prepared in mixed lymphocyte reactions with purified rat T helper cells against irradiated spleen. Donor: BALB/c spleen Fusion Partner: NSO/1
Specificity:	This monoclonal antibody reacts with the 50 kDa surface glycoprotein LFA-2, designated as CD2. LFA-2 is the receptor for LFA-3. This antibody labels all peripheral T cells and most thymocytes but does not label B cells or peritoneal macrophages. It does not activate T cells.
Formulation:	PBS,no preservative. State: Azide Free State: Liquid purified IgG
Concentration:	lot specific
Purification:	Protein G Chromatography
Conjugation:	Unconjugated
Storage:	Store the antibody undiluted at 2-8°C for one month or (in aliquots) at -20°C for longer. Avoid repeated freezing and thawing.
Stability:	Shelf life: one year from despatch.
Gene Name:	Cd2 molecule
Database Link:	Entrez Gene 497761 Rat P08921

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Background: CD2 is a surface antigen of the human T lymphocyte lineage that is expressed on all peripheral blood T cells. It is one of the earliest T cell markers, being present on more than 95% of thymocytes; it is also found on some natural killer cells but not on B lymphocytes. CD2 interacts with lymphocyte function associated antigen (LFA3) and CD48/BCM1 to mediate adhesion between T cells and other cell types. CD2 is implicated in the triggering of T cells, the cytoplasmic domain is implicated in the signaling function. It is useful for the identification of lymphomas and leukaemias of T cell origin.

Synonyms: SRBC, Erythrocyte receptor, LFA-2, LFA-3 receptor, Rosette receptor

Note:

Protocol: **FLOW CYTOMETRY ANALYSIS:**

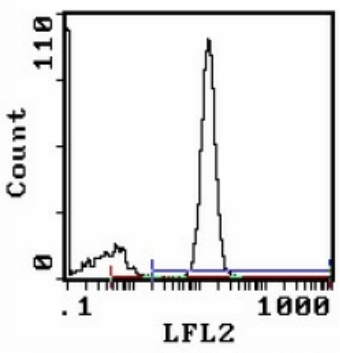
Method:
1. Prepare a cell suspension in media A. For cell preparations, deplete the red blood cell population with Lympholyte®- Rat cell separation medium.
2. Wash 2 times.
3. Resuspend the cells to a concentration of 2x10e7 cells/ml in media A. Add 50 µl of this suspension to each tube (each tube will then contain 1x10e6 cells, representing 1 test).
4. To each tube, add 0.05-0.1 µg of this Ab.
5. Vortex the tubes to ensure thorough mixing of antibody and cells.
6. Incubate the tubes for 30 minutes at 4°C.
7. Wash 2 times at 4°C.
8. Add 100 µl of secondary antibody (FITC Goat anti-mouse IgG (H+L)) at 1:500 dilution.
9. Incubate the tubes at 4°C for 30-60 minutes. (It is recommended that the tubes are protected from light since most fluorochromes are light sensitive).
10. Wash 2 times at 4°C in media B.
11. Resuspend the cell pellet in 50 µl ice cold media B.
12. Transfer to suitable tubes for flow cytometric analysis containing 15 µl of propidium iodide at 0.5 mg/ml in PBS. This stains dead cells by intercalating in DNA.

Media:
A. Phosphate buffered saline (pH 7.2) + 5% normal serum of host species + sodium azide (100 µl of 2M sodium azide in 100 mls).
B. Phosphate buffered saline (pH 7.2) + 0.5% Bovine serum albumin + sodium azide (100 µl of 2M sodium azide in 100 mls).

Results - Tissue Distribution by Flow Cytometry Analysis:
Rat Strain: Fischer
Cell Concentration: 1x10e6 cells per tests
Antibody Concentration Used: 1.0 µg/10e6 cells
Isotypic Control: PE Mouse IgG2a

Cell Source Percentage of cells stained above control:
Thymus: 99.6%
Spleen: 70.6%
Lymph Node: 87.2%

Product images:



CL034PE (Anti-Rat CD2)

Cell Source: Lymph Node
Percentage of cells stained above control: 87.2%