

Product datasheet for **CL110B**

CD44 Mouse Monoclonal Antibody [Clone ID: OX-49]

Product data:

Product Type:	Primary Antibodies
Clone Name:	OX-49
Applications:	FC, IHC, WB
Recommended Dilution:	Flow Cytometry. Western Blotting. Immunohistochemistry on frozen and paraffin sections.
Reactivity:	Rat
Host:	Mouse
Isotype:	IgG2a
Clonality:	Monoclonal
Immunogen:	T cell blasts. Donor: BALB/c spleen. Fusion Partner: myeloma cell line NSO/1.
Specificity:	This monoclonal antibody recognizes rat CD44 (Pgp-1), also called CD44H. This antigen is expressed on most leukocytes (except a sub population of B cells) and increases upon activation. The OX-49 antibody binds extracellularly to the standard (S) form on rat leukocytes but it is not known if they bind to the N-terminal region. It has also been reported that the antibody may bind to melanoma cell lines that express CD44V (splice variant form).
Formulation:	PBS, 0.02% NaN ₃ and EIA grade BSA as a stabilizing protein to bring total protein concentration to 4-5 mg/ml Label: Biotin State: Liquid purified Ig
Concentration:	lot specific
Purification:	Protein G Chromatography
Conjugation:	Biotin
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.



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Background: CD44 is a type 1 transmembrane glycoprotein also known as Phagocytic Glycoprotein 1 (pgp 1) and HCAM. CD44 is the receptor for hyaluronate and exists as a large number of different isoforms due to alternative RNA splicing. The major isoform expressed on lymphocytes, myeloid cells, and erythrocytes is a glycosylated type 1 transmembrane protein. Other isoforms contain glycosaminoglycans and are expressed on hematopoietic and non hematopoietic cells. CD44 is involved in adhesion of leukocytes to endothelial cells, stromal cells, and the extracellular matrix.

Synonyms: LHR, MDU2, MDU3, MIC4, CDw44, Epican, ECMR-III, HUTCH-I, Heparan sulfate proteoglycan, Hermes antigen, Hyaluronate receptor, PGP-1

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 2×10^7 cells/ml in media A. Add 50 μ l of this suspension to each tube (each tube will then contain 1×10^6 cells, representing 1 test).
4. To each tube, add 1.0-0.5 μ g* 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 μ l of secondary antibody (Streptavidin-FITC) 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 μ l ice cold media B.
12. Transfer to suitable tubes for flow cytometric analysis containing 15 μ l 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 μ l of 2M sodium azide in 100 mls).
- B. Phosphate buffered saline (pH 7.2) + 0.5% Bovine serum albumin + sodium azide (100 μ l of 2M sodium azide in 100 mls).

Results - Tissue Distribution:

Rat Strain: Wistar

Cell Concentration: 1×10^6 cells per test

Antibody Concentration Used: 0.5 μ g/ 10^6 cells

Isotypic Control: Biotin Mouse IgG2a

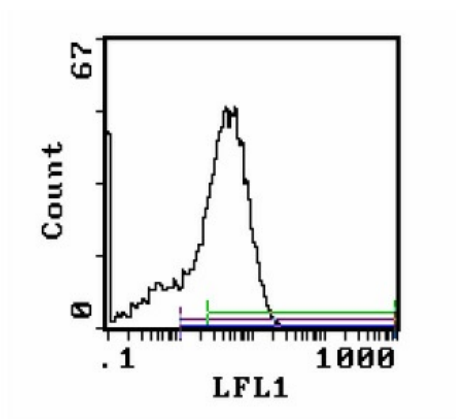
Cell Source Percentage of cells stained above control:

Thymus: 96.3%

Spleen: 66.2%

Lymph Node: 89.9%

Product images:



Cell Source: Spleen

Percentage of cells stained above control: 66.2%