

# CD74 (In-1): sc-19627

## BACKGROUND

The human histocompatibility leukocyte antigen (HLA) class II-associated invariant chain is composed of at least four polypeptides. One of these polypeptide chains is expressed as a membrane-bound subunit and has been designated CD74. The loading of peptide onto the class II MHC protein (MHC II) appears to be regulated by CD74, which associates with MHC II during its migration to the endosomal compartment, where class II binds peptide. CD74 is expressed by cells of both T lymphocyte and B lymphocyte lineages. In fact, CD74 is broadly expressed in normal B lymphocytes, regardless of their histocompatibility leukocyte antigen (HLA) phenotype, while a subset of peripheral T lymphocytes that are MHC II negative do not express CD74.

## REFERENCES

1. McMaster, W.R., et al. 1979. Identification of Ia glycoproteins in rat thymus and purification from rat spleen. *Eur. J. Immunol.* 9: 426-433.
2. Sarker, A.B., et al. 1992. Bauhinia purpurea-a new paraffin section marker for Reed-Sternberg cells of Hodgkin's disease. A comparison with Leu-M1 (CD15), LN2 (CD74), peanut agglutinin, and Ber-H2 (CD30). *Am. J. Pathol.* 141: 19-23.
3. Wilson, K.M., et al. 1993. Cell-surface expression of human histocompatibility leukocyte antigen (HLA) class II-associated invariant chain (CD74) does not always correlate with cell-surface expression of HLA class II molecules. *Immunology* 79: 331-335.
4. Lu, Y., et al. 1994. Retinoblastoma protein regulation of surface CD74 (invariant chain) expression in breast carcinoma cells. *Mol. Immunol.* 31: 1365-1368.
5. Henne, C., et al. 1995. Surface expression of the invariant chain (CD74) is independent of concomitant expression of major histocompatibility complex class II antigens. *Immunology* 84: 177-182.

## CHROMOSOMAL LOCATION

Genetic locus: Cd74 (mouse) mapping to 18 E1.

## SOURCE

CD74 (In-1) is a rat monoclonal antibody derived from A.TL mouse lymphocytes and B10.A mouse-derived CH1 B-cell lymphoma.

## PRODUCT

Each vial contains 200 µg IgG<sub>2b</sub> in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

CD74 (In-1) is available conjugated to either phycoerythrin (sc-19627 PE) or fluorescein (sc-19627 FITC), 200 µg/ml, for IF, IHC(P) and FCM.

## STORAGE

Store at 4° C, \*\*DO NOT FREEZE\*\*. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

## RESEARCH USE

For research use only, not for use in diagnostic procedures.

## APPLICATIONS

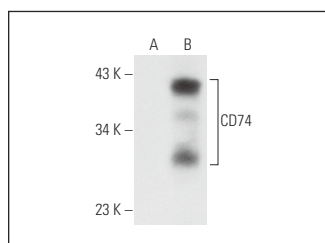
CD74 (In-1) is recommended for detection of CD74 of mouse origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and flow cytometry (1 µg per 1 x 10<sup>6</sup> cells).

Suitable for use as control antibody for CD74 siRNA (m): sc-35024, CD74 shRNA Plasmid (m): sc-35024-SH and CD74 shRNA (m) Lentiviral Particles: sc-35024-V.

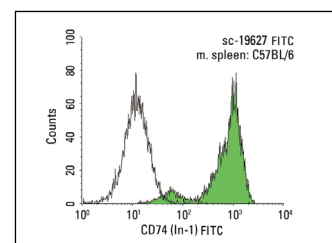
Molecular Weight of CD74 isoforms: 31-45 kDa.

Positive Controls: CD74 (m2): 293T Lysate: sc-119118, J774.A1 cell lysate: sc-3802 or RAW 264.7 whole cell lysate: sc-2211.

## DATA



CD74 (In-1): sc-19627. Western blot analysis of CD74 expression in non-transfected: sc-117752 (A) and mouse CD74 transfected: sc-119118 (B) 293T whole cell lysates.



CD74 (In-1) FITC: sc-19627 FITC. Indirect/Direct FCM analysis of mouse spleen: C57BL/6 stained with CD74 (In-1) FITC (green histogram). Black line histogram represents the isotype control, rat IgG<sub>2b</sub>-FITC: sc-2835.

## SELECT PRODUCT CITATIONS

1. Doloff, J.C. and Waxman, D.J. 2012. VEGF receptor inhibitors block the ability of metronomically dosed cyclophosphamide to activate innate immunity-induced tumor regression. *Cancer Res.* 72: 1103-1115.

## PROTOCOLS

See our web site at [www.scbt.com](http://www.scbt.com) for detailed protocols and support products.



See **CD74 (LN-2): sc-6262** for CD74 antibody conjugates, including AC, HRP, FITC, PE, and Alexa Fluor® 488, 546, 594, 647, 680 and 790.