

CD74 (h2): 293T Lysate: sc-175302

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.
6. Shih, N.Y., et al. 1995. Invariant chain (CD74) gene regulation: enhanced expression associated with activation of protein kinase C δ in a murine B lymphoma cell line. *Mol. Immunol.* 32: 643-650.
7. Loachim, H.L., et al. 1996. Lymphoid monoclonal antibodies reactive with lung tumors. *Am. J. Surg. Pathol.* 20: 64-71.

CHROMOSOMAL LOCATION

Genetic locus: CD74 (human) mapping to 5q32.

PRODUCT

CD74 (h2): 293T Lysate represents a lysate of human CD74 transfected 293T cells and is provided as 100 μ g protein in 200 μ l SDS-PAGE buffer.

STORAGE

Store at -20° C. Repeated freezing and thawing should be minimized. Sample vial should be boiled once prior to use. Non-hazardous. No MSDS required.

PROTOCOLS

See our web site at www.scbt.com for detailed protocols and support products.

APPLICATIONS

CD74 (h2): 293T Lysate is suitable as a Western Blotting positive control for human reactive CD74 antibodies. Recommended use: 10-20 μ l per lane.

Control 293T Lysate: sc-117752 is available as a Western Blotting negative control lysate derived from non-transfected 293T cells.

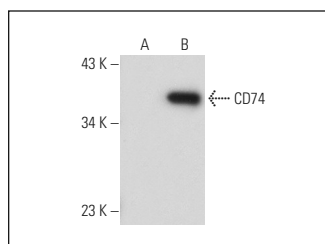
CD74 (D-6): sc-137217 is recommended as a positive control antibody for Western Blot analysis of enhanced human CD74 expression in CD74 transfected 293T cells (starting dilution 1:100, dilution range 1:100-1:1,000).

RECOMMENDED SUPPORT REAGENTS

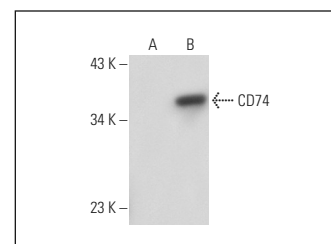
To ensure optimal results, the following support reagents are recommended:

1) Western Blotting: use m-IgG κ BP-HRP: sc-516102 or m-IgG κ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 and Western Blotting Luminol Reagent: sc-2048.

DATA



CD74 (D-6): sc-137217. Western blot analysis of CD74 expression in non-transfected: sc-117752 (A) and human CD74 transfected: sc-175302 (B) 293T whole cell lysates.



CD74 (A-6): sc-166047. Western blot analysis of CD74 expression in non-transfected: sc-117752 (A) and human CD74 transfected: sc-175302 (B) 293T whole cell lysates.

RESEARCH USE

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