

CD74 (FL-296): sc-20082

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: 426-33.
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.

CHROMOSOMAL LOCATION

Genetic locus: CD74 (human) mapping to 5q32; Cd74 (mouse) mapping to 18 E1.

SOURCE

CD74 (FL-296) is a rabbit polyclonal antibody raised against amino acids 17-296 mapping at the C-terminus of CD74 of human origin.

PRODUCT

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

APPLICATIONS

CD74 (FL-296) is recommended for detection of CD74 of mouse, rat and human 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), immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for CD74 siRNA (h): sc-35023, CD74 siRNA (m): sc-35024, CD74 shRNA Plasmid (h): sc-35023-SH, CD74 shRNA Plasmid (m): sc-35024-SH, CD74 shRNA (h) Lentiviral Particles: sc-35023-V and CD74 shRNA (m) Lentiviral Particles: sc-35024-V.

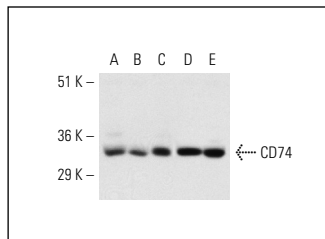
Molecular Weight of CD74 isoforms: 31-45 kDa.

Positive Controls: J774.A1 cell lysate: sc-3802, RAW 264.7 whole cell lysate: sc-2211 or IB4 whole cell lysate: sc-364780.

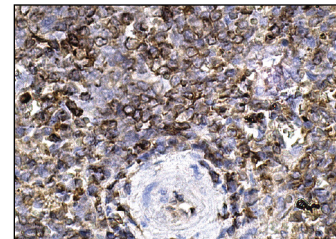
STORAGE

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

DATA



CD74 (FL-296): sc-20082. Western blot analysis of CD74 expression in J774A.1 (A), RAW 264.7 (B), IB4 (C), NFS-5 C-1 (D) and I-11.15 (E) whole cell lysates.



CD74 (FL-296): sc-20082. Immunoperoxidase staining of formalin fixed, paraffin-embedded human spleen tissue showing membrane staining of cells in white pulp.

SELECT PRODUCT CITATIONS

1. Binsky, I., et al. 2007. IL-8 secreted in a macrophage migration-inhibitory factor- and CD74-dependent manner regulates B cell chronic lymphocytic leukemia survival. *Proc. Natl. Acad. Sci. USA* 104: 13408-13413.
2. Li, D., et al. 2009. Downregulation of MHC class II expression through inhibition of CIITA transcription by lytic transactivator Zta during Epstein-Barr virus reactivation. *J. Immunol.* 182: 1799-1809.
3. Wong, B.L., et al. 2009. Essential role for macrophage migration inhibitory factor in gastritis induced by *Helicobacter pylori*. *Am. J. Pathol.* 174: 1319-1328.
4. Martín-Ventura, J.L., et al. 2009. Increased CD74 expression in human atherosclerotic plaques: contribution to inflammatory responses in vascular cells. *Cardiovasc. Res.* 83: 586-594.
5. Sanchez-Niño, M.D., et al. 2009. The MIF receptor CD74 in diabetic podocyte injury. *J. Am. Soc. Nephrol.* 20: 353-362.

RESEARCH USE

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

PROTOCOLS

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



Try **CD74 (LN-2): sc-6262** or **CD74 (PIN.1): sc-47742**, our highly recommended monoclonal alternatives to CD74 (FL-296). Also, for AC, HRP, FITC, PE, Alexa Fluor[®] 488 and Alexa Fluor[®] 647 conjugates, see **CD74 (LN-2): sc-6262**.