

## CD74 (LN-2): sc-6262



The Power to Question

## 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.

## CHROMOSOMAL LOCATION

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

## SOURCE

CD74 (LN-2) is a mouse monoclonal antibody raised against SU-DHL-4 lymphoma cells.

## PRODUCT

Each vial contains 200 µg IgG<sub>1</sub> kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

CD74 (LN-2) is available conjugated to agarose (sc-6262 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-6262 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-6262 PE), fluorescein (sc-6262 FITC), Alexa Fluor® 488 (sc-6262 AF488), Alexa Fluor® 546 (sc-6262 AF546), Alexa Fluor® 594 (sc-6262 AF594) or Alexa Fluor® 647 (sc-6262 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-6262 AF680) or Alexa Fluor® 790 (sc-6262 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

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## APPLICATIONS

CD74 (LN-2) 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 flow cytometry (1 µg per 1 x 10<sup>6</sup> cells).

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.

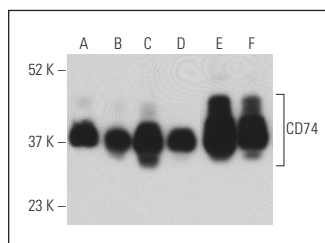
Molecular Weight of CD74 isoforms: 31-45 kDa.

Positive Controls: Ramos cell lysate: sc-2216, GA-10 whole cell lysate: sc-364230 or BJAB whole cell lysate: sc-2207.

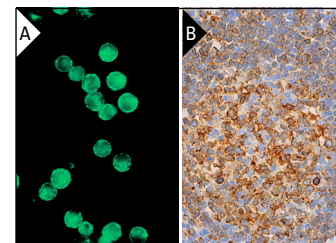
## STORAGE

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

## DATA



CD74 (LN-2): sc-6262. Western blot analysis of CD74 expression in NAMALWA (A), Ramos (B), GA-10 (C), U-698-M (D), Raji (E) and BJAB (F) whole cell lysates. Detection reagent used: m-IgG<sub>1</sub> BP-HRP: sc-525408.



CD74 (LN-2): sc-6262. Immunofluorescence staining of methanol-fixed Ramos cells showing membrane localization (A). CD74 (LN-2) HRP: sc-6262 HRP. Direct immunoperoxidase staining of formalin fixed, paraffin-embedded human lymph node tissue showing membrane and cytoplasmic staining of cells in germinal center and cells in non-germinal center. Blocked with 0.25X UltraCruz® Blocking Reagent: sc-516214 (B).

## SELECT PRODUCT CITATIONS

1. Fischelevich, R., et al. 2006. Ceramide-dependent regulation of human epidermal keratinocyte CD1d expression during terminal differentiation. *J. Immunol.* 176: 2590-2599.
2. Yoo, S.A., et al. 2016. MIF allele-dependent regulation of the MIF coreceptor CD44 and role in rheumatoid arthritis. *Proc. Natl. Acad. Sci. USA* 113: E7917-E7926.
3. Korf, H., et al. 2017. MIF inhibition interferes with the inflammatory and T cell-stimulatory capacity of NOD macrophages and delays autoimmune diabetes onset. *PLoS ONE* 12: e0187455.
4. Anczurowski, M., et al. 2018. Mechanisms underlying the lack of endogenous processing and CLIP-mediated binding of the invariant chain by HLA-DP84Gly. *Sci. Rep.* 8: 4804.
5. Imaoka, M., et al. 2019. Macrophage migration inhibitory factor-CD74 interaction regulates the expression of programmed cell death ligand 1 in melanoma cells. *Cancer Sci.* 110: 2273-2283.
6. Wang, S., et al. 2020. Single cell transcriptomics of human epidermis identifies basal stem cell transition states. *Nat. Commun.* 11: 4239.
7. Tilstam, P.V., et al. 2021. MIF but not MIF-2 recruits inflammatory macrophages in an experimental polymicrobial sepsis model. *J. Clin. Invest.* 131: e127171.
8. Li, X., et al. 2022. Neuroinflammation in the medial prefrontal cortex exerts a crucial role in bone cancer pain. *Front. Mol. Neurosci.* 15: 1026593.
9. Park, H., et al. 2023. Single-cell RNA-sequencing identifies disease-associated oligodendrocytes in male APP NL-G-F and 5XFAD mice. *Nat. Commun.* 14: 802.

## RESEARCH USE

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