

CD94 (H-3): sc-390776

BACKGROUND

The activity of natural killer (NK) cells is regulated by members of multiple receptor families that recognize class I MHC molecules, such as the killer cell inhibitory receptor/leukocyte immunoglobulin-like receptor (KIR/LIR) family and the C-type lectin superfamily. The KIR/LIR family includes p91A (also designated pp130 or PIR-B, for paired immunoglobulin-like receptor-B) and p91B (also designated PIR-A). p91A acts as an inhibitory receptor through interactions with SHP-1, whereas p91B acts as an activating receptor. CD94, NKG2 and Ly-49 are members of the C-type lectin superfamily of type II membrane glycoproteins. CD94 forms heterodimers with NKG2 isoforms on the surface of NK cells, whereas Ly-49 isoforms form homodimers. NKG2-D, expressed on NK cells, $\gamma\delta$ T cells, and CD8 $^+$ $\alpha\beta$ T cells, is a receptor for the stress inducible protein MICA, an antigen frequently expressed in epithelial tumors.

REFERENCES

- Long, E.O. and Wagtmann, N. 1997. Natural killer cell receptors. *Curr. Opin. Immunol.* 9: 344-350.
- Moretta, A. and Moretta, L. 1997. HLA class I specific inhibitory receptors. *Curr. Opin. Immunol.* 9: 694-701.
- Hayami, K., et al. 1997. Molecular cloning of a novel murine cell-surface glycoprotein homologous to killer cell inhibitory receptors. *J. Biol. Chem.* 272: 7320-7327.
- Ryan, J.C. and Seaman, W.E. 1997. Divergent functions of lectin-like receptors on NK cells. *Immunol. Rev.* 155: 79-89.

CHROMOSOMAL LOCATION

Genetic locus: KLRD1 (human) mapping to 12p13.2; Klrd1 (mouse) mapping to 6 F3.

SOURCE

CD94 (H-3) is a mouse monoclonal antibody raised against amino acids 111-179 mapping at the C-terminus of CD94 of human origin.

PRODUCT

Each vial contains 200 μ g IgG_{2a} kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

CD94 (H-3) is available conjugated to agarose (sc-390776 AC), 500 μ g/0.25 ml agarose in 1 ml, for IP; to HRP (sc-390776 HRP), 200 μ g/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-390776 PE), fluorescein (sc-390776 FITC), Alexa Fluor[®] 488 (sc-390776 AF488), Alexa Fluor[®] 546 (sc-390776 AF546), Alexa Fluor[®] 594 (sc-390776 AF594) or Alexa Fluor[®] 647 (sc-390776 AF647), 200 μ g/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor[®] 680 (sc-390776 AF680) or Alexa Fluor[®] 790 (sc-390776 AF790), 200 μ g/ml, for Near-Infrared (NIR) WB, IF and FCM.

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RESEARCH USE

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

APPLICATIONS

CD94 (H-3) is recommended for detection of CD94 of mouse, rat and human origin by Western Blotting (starting dilution 1:100, dilution range 1:100-1:1000), immunoprecipitation [1-2 μ g per 100-500 μ g of total protein (1 ml of cell lysate)], immunofluorescence (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 CD94 siRNA (h): sc-42933, CD94 siRNA (m): sc-42934, CD94 shRNA Plasmid (h): sc-42933-SH, CD94 shRNA Plasmid (m): sc-42934-SH, CD94 shRNA (h) Lentiviral Particles: sc-42933-V and CD94 shRNA (m) Lentiviral Particles: sc-42934-V.

Molecular Weight of CD94: 30 kDa.

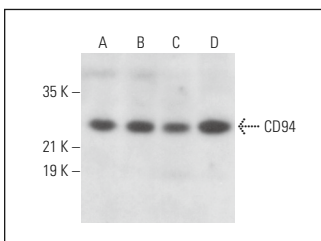
Positive Controls: NK-92 whole cell lysate: sc-364788, BYDP whole cell lysate: sc-364368 or U-87 MG cell lysate: sc-2411.

RECOMMENDED SUPPORT REAGENTS

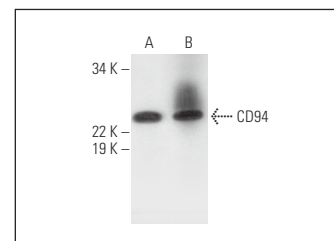
To ensure optimal results, the following support reagents are recommended:

- 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.
- Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml).
- Immunofluorescence: use m-IgG κ BP-FITC: sc-516140 or m-IgG κ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz[®] Mounting Medium: sc-24941 or UltraCruz[®] Hard-set Mounting Medium: sc-359850.

DATA



CD94 (H-3): sc-390776. Western blot analysis of CD94 expression in U-87 MG (A), HT-1080 (B), HL-60 (C) and BYDP (D) whole cell lysates.



CD94 (H-3): sc-390776. Western blot analysis of CD94 expression in NK-92 (A) and mouse PBL (B) whole cell lysates.

SELECT PRODUCT CITATIONS

- Yang, T., et al. 2017. Shifts in the gut microbiota composition due to depleted bone marrow β adrenergic signaling are associated with suppressed inflammatory transcriptional networks in the mouse colon. *Front. Physiol.* 8: 220.

STORAGE

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