

CD94 (E-19): sc-9611

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

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- Moretta, A., et al. 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., et al. 1997. Divergent functions of lectin-like receptors on NK cells. *Immunol. Rev.* 155: 79-89.
- Vance, R.E., et al. 1997. Cloning of a mouse homolog of CD94 extends the family of C-type lectins on murine natural killer cells. *Eur. J. Immunol.* 27: 3236-3241.
- Berg, K.L., et al. 1998. The major SHP-1-binding, tyrosine-phosphorylated protein in macrophages is a member of the KIR/LIR family and an SHP-1 substrate. *Oncogene* 17: 2535-2541.

CHROMOSOMAL LOCATION

Genetic locus: KLRD1 (human) mapping to 12p13; Klrd1 (mouse) mapping to 6 62.52 cM.

SOURCE

CD94 (E-19) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the C-terminus of CD94 of human origin.

PRODUCT

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

Blocking peptide available for competition studies, sc-9611 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

STORAGE

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

APPLICATIONS

CD94 (E-19) is recommended for detection of CD94 of human origin by Western Blotting (starting dilution 1:200, 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 shRNA Plasmid (h): sc-42933-SH and CD94 shRNA (h) Lentiviral Particles: sc-42933-V.

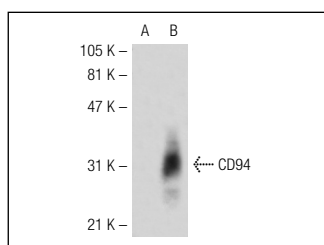
Molecular Weight of CD94: 30 kDa.

Positive Controls: human PBL.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

DATA



CD94 (E-19): sc-9611. Western blot analysis of CD94 expression in non-transfected: sc-117752 (A) and human CD94 transfected: sc-114690 (B) 293T whole cell lysates.

SELECT PRODUCT CITATIONS

- Bahri, R., et al. 2006. Soluble HLA-G inhibits cell cycle progression in human alloreactive T lymphocytes. *J. Immunol.* 176: 1331-1339.

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.