

NK 2B4 (HD2): sc-53596

BACKGROUND

Natural killer (NK) cells are bone marrow-derived lymphocytes that can kill certain tumor cells and virally infected cells. There are multiple immunoglobulin superfamily (IgSF) receptor-ligand interactions that coordinate NK cell recognition of target cells and cytolytic function. The IgSF receptor NK 2B4 (CD244) is a ligand for CD48 that is expressed on the surface of all mouse and human NK cells and the subset of T cells that mediate NK-like killing. NK 2B4 is a cell surface glycoprotein of the immunoglobulin superfamily that is involved in the regulation of natural killer and T lymphocyte function. NK 2B4 binds the Src homology 2 domain-containing protein (SH2D1A) or signaling lymphocyte activation molecule (SLAM)-associated protein (SAP), which may function as regulators of NK 2B4-associated signal transduction pathways. NK 2B4 is expressed in human spleen, peripheral blood leukocytes, lymph node, bone marrow and fetal liver.

REFERENCES

1. Chuang, S.S., et al. 1999. Molecular cloning and characterization of the promoter region of murine natural killer cell receptor 2B4. *Biochim. Biophys. Acta* 1447: 244-250.
2. Nakajima, H., et al. 1999. Activating interactions in human NK cell recognition: the role of 2B4-CD48. *Eur. J. Immunol.* 29: 1676-1683.
3. Boles, K.S., et al. 1999. Molecular characterization of a novel human natural killer cell receptor homologous to mouse 2B4. *Tissue Antigens* 54: 27-34.
4. Kumaresan, P.R., et al. 2000. Molecular cloning of transmembrane and soluble forms of a novel rat natural killer cell receptor related to 2B4. *Immunogenetics* 51: 306-313.

CHROMOSOMAL LOCATION

Genetic locus: CD244 (human) mapping to 1q23.3.

SOURCE

NK 2B4 (HD2) is a mouse monoclonal antibody raised against NK cells of human origin.

PRODUCT

Each vial contains 200 µg IgG_{2a} kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin. Also available azide-free for functional studies, sc-53596 L, 200 µg/0.1 ml.

NK 2B4 (HD2) is available conjugated to agarose (sc-53596 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-53596 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-53596 PE), fluorescein (sc-53596 FITC), Alexa Fluor[®] 488 (sc-53596 AF488), Alexa Fluor[®] 546 (sc-53596 AF546), Alexa Fluor[®] 594 (sc-53596 AF594) or Alexa Fluor[®] 647 (sc-53596 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor[®] 680 (sc-53596 AF680) or Alexa Fluor[®] 790 (sc-53596 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

RESEARCH USE

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

APPLICATIONS

NK 2B4 (HD2) is recommended for detection of NK 2B4 of 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)] and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for NK 2B4 siRNA (h): sc-42944, NK 2B4 shRNA Plasmid (h): sc-42944-SH and NK 2B4 shRNA (h) Lentiviral Particles: sc-42944-V.

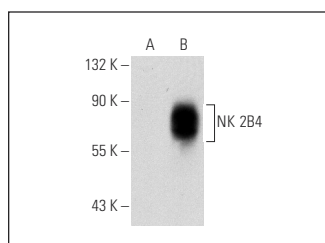
Molecular Weight of NK 2B4: 48-86 kDa.

Positive Controls: NK 2B4 (h): 293T Lysate: sc-117189, Ramos cell lysate: sc-2216 or NK-92 whole cell lysate: sc-364788.

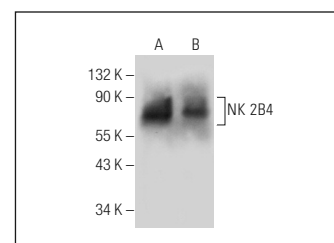
RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgGκ BPHRP: sc-516102 or m-IgGκ BPHRP (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. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml).

DATA



NK 2B4 (HD2): sc-53596. Western blot analysis of NK 2B4 expression in non-transfected: sc-117752 (A) and human NK 2B4 transfected: sc-117189 (B) 293T whole cell lysates.



NK 2B4 (HD2): sc-53596. Western blot analysis of NK 2B4 expression in NK-92 (A) and human PBL (B) whole cell lysates.

STORAGE

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

PROTOCOLS

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

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