

NK 2B4 (T-20): sc-18165

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.
5. Parolini, S., et al. 2000. X-linked lymphoproliferative disease. 2B4 molecules displaying inhibitory rather than activating function are responsible for the inability of natural killer cells to kill Epstein-Barr virus-infected cells. *J. Exp. Med.* 192: 337-346.
6. Kumaresan, P.R., et al. 2000. Molecular characterization of the rat NK cell receptor 2B4. *Mol. Immunol.* 37: 735-744.

CHROMOSOMAL LOCATION

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

SOURCE

NK 2B4 (T-20) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the N-terminus of NK 2B4 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.

Blocking peptide available for competition studies, sc-18165 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

RESEARCH USE

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

APPLICATIONS

NK 2B4 (T-20) 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)], 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 NK 2B4 siRNA (h): sc-42944, NK 2B4 shRNA Plasmid (h): sc-42944-SH and NK 2B4 shRNA (h) Lentiviral Particles: sc-42944-V.

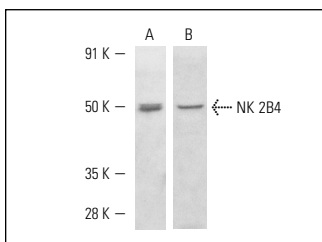
Molecular Weight of NK 2B4: 48-86 kDa.

Positive Controls: Ramos cell lysate: sc-2216.

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) 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



Western blot analysis of NK 2B4 expression in Ramos whole cell lysate. Antibodies tested include NK 2B4 (T-20): sc-18165 (A) and NK 2B4 (M-20): sc-18167 (B).

STORAGE

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



Try **NK 2B4 (2B4.69): sc-80900**, our highly recommended monoclonal alternative to NK 2B4 (T-20).