# NKG2 (C-17): sc-9619



The Power to Question

# **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, gdT cells and CD8+ $\alpha$ B T cells, is a receptor for the stress inducible protein MICA, an antigen frequently expressed in epithelial tumors.

# **REFERENCES**

- 1. Long, E.O., et al. 1997. Natural killer cell receptors. Curr. Opin. Immunol. 9: 344-350.
- 2. 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.
- 4. 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.
- 7. Salcedo, M. 1999. Inhibitory role of murine Ly-49 lectin-like receptors on natural killer cells. Curr. Top. Microbiol. Immunol. 244: 97-105.
- 8. Bauer, S., et al. 1999. Activation of NK cells and T cells by NKG2D, a receptor for stress-inducible MICA. Science 285: 727-729.

# **SOURCE**

NKG2 (C-17) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the C-terminus of NKG2 of human origin.

# **PRODUCT**

Each vial contains 200  $\mu g$  lgG in 1.0 ml of PBS with <0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-9619 P, (100  $\mu$ g 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**

NKG2 (C-17) is recommended for detection of NKG2-A, NKG2-B and NKG2-C of human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2  $\mu$ g per 100-500  $\mu$ 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 NKG2 siRNA (h): sc-42946, NKG2 shRNA Plasmid (h): sc-42946-SH and NKG2 shRNA (h) Lentiviral Particles: sc-42946-V.

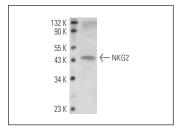
Molecular Weight of NKG2: 31-43 kDa.

Positive Controls: Jurkat whole cell lysate: sc-2204.

# **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



NKG2 (C-17): sc-9619. Western blot analysis of NKG2 expression in Jurkat whole cell lysate.

#### **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 or our catalog for detailed protocols and support products.