SANTA CRUZ BIOTECHNOLOGY, INC.

NKp30 (G-19): sc-20477

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

The immune response is the way the body recognizes and defends itself against microorganisms, viruses and substances recognized as foreign and potentially harmful to the body. Innate immunity is the barrier that keeps foreign materials from entering the body and represents the first line of defense in the immune response. During the innate response to many inflammatory and infectious stimuli, dendritic cells (DCs) undergo a differentiation process termed maturation. Mature DCs activate antigen-specific naive T cells and resting human natural killer (NK) cells. NK cell receptors NKp30, NKp44 and NKp46, appear to play prominent roles in NK cell activation. The human NKp30 gene maps to chromosome 6p21.33 and encodes a 190 amino acid protein. The NKp30 protein contains a signal peptide followed by a 120 amino acid extracellular region that forms a V-type Ig-like domain with 2 potential N-linked glycosylation sites, a hydrophobic transmembrane region with a positively charged Arginine residue and a 33 amino acid cytoplasmic tail lacking an immunoreceptor tyrosine-based activating motif (ITAM). NKp30 cooperates with NKp46 and/or NKp44 in the induction of NK-mediated cytotoxicity against the majority of target cells, where it represents the major triggering receptor in the killing of certain tumors.

CHROMOSOMAL LOCATION

Genetic locus: NCR3 (human) mapping to 6p21.33.

SOURCE

NKp30 (G-19) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an N-terminal extracellular domain of NKp30 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-20477 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

NKp30 (G-19) is recommended for detection of NKp30 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 NKp30 siRNA (h): sc-42950, NKp30 shRNA Plasmid (h): sc-42950-SH and NKp30 shRNA (h) Lentiviral Particles: sc-42950-V.

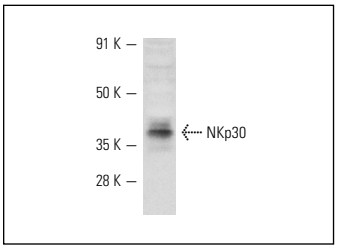
Molecular Weight of NKp30: 39 kDa.

Positive Controls: THP-1 cell lysate: sc-2238.

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



NKp30 (G-19): sc-20477. Western blot analysis of NKp30 expression in THP-1 whole cell lysate.

SELECT PRODUCT CITATIONS

1. Pogge von Strandmann, E., et al. 2007. Human leukocyte antigen-B-associated transcript 3 is released from tumor cells and engages the NKp30 receptor on natural killer cells. Immunity 27: 965-974.
2. Ponnampalam, A.P., et al. 2008. Identification and hormonal regulation of a novel form of NKp30 in human endometrial epithelium. Eur. J. Immunol. 38: 216-226.
3. Ponnampalam, A.P., et al. 2008. Expression and regulation of fucosyltransferase 4 in human endometrium. Reproduction 136: 117-123.

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.