

# NKp30 (CLH9): sc-33647

## 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 6p21.3 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 (CLH9) is a mouse monoclonal antibody raised against rat NKp30-Fc protein.

## PRODUCT

Each vial contains 200 µg IgG<sub>1</sub> kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

NKp30 (CLH9) is available conjugated to agarose (sc-33647 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-33647 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-33647 PE), fluorescein (sc-33647 FITC), Alexa Fluor® 488 (sc-33647 AF488), Alexa Fluor® 546 (sc-33647 AF546), Alexa Fluor® 594 (sc-33647 AF594) or Alexa Fluor® 647 (sc-33647 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-33647 AF680) or Alexa Fluor® 790 (sc-33647 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

Alexa Fluor® is a trademark of Molecular Probes, Inc., Oregon, USA

## 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](http://www.scbt.com) for detailed protocols and support products.

## APPLICATIONS

NKp30 (CLH9) is recommended for detection of NKp30 of mouse, rat and human origin by Western Blotting (starting dilution 1:100, 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), immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500) and flow cytometry (1 µg per 1 x 10<sup>6</sup> cells).

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.

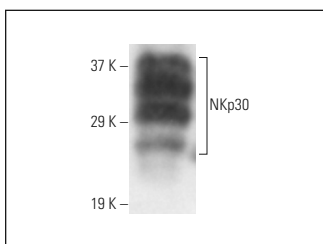
Molecular Weight of NKp30: 39 kDa.

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

## RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ BP-HRP (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). 3) Immunofluorescence: use m-IgGκ BP-FITC: sc-516140 or m-IgGκ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850. 4) Immunohistochemistry: use m-IgGκ BP-HRP: sc-516102 with DAB, 50X: sc-24982 and Immunohistomount: sc-45086, or Organo/Limonene Mount: sc-45087.

## DATA



NKp30 (CLH9): sc-33647. Western blot analysis of NKp30 expression in NKp30 transfected 293F whole cell lysate.



NKp30 (CLH9): sc-33647. Indirect FCM analysis of 293-rat NKp30 stable transfectant cell line stained with NKp30 (CLH9), followed by PE-conjugated goat anti-mouse IgG<sub>1</sub>: sc-3764. Black line histogram represents the isotype control, normal mouse IgG<sub>1</sub>: sc-3877. Rat NKp30 transfected 293 cell line kindly provided by Christine Hsieh of Stanford University.

## SELECT PRODUCT CITATIONS

1. Batusic, D.S., et al. 2011. Different physiology of interferon- $\alpha$ - $\gamma$  in models of liver regeneration in the rat. *Histochem. Cell Biol.* 136: 131-144.
2. Lacotte, S., et al. 2014. Alloimmune activation promotes anti-cancer cytotoxicity after rat liver transplantation. *PLoS ONE* 9: e91515.

## RESEARCH USE

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