

# CD161 (N-20): sc-17028

## BACKGROUND

Natural killer (NK) and T cells express a superfamily of proteins with structural features of C-type lectins. T cells bearing natural killer receptors (NKR) such as CD94 and CD161 are present in psoriasis. CD161 mediates NK cell activation and functions as an activating receptor. CD161 is a prototypic marker of NK cells, although it is also found on a subset of CD8<sup>+</sup> T cells. The expression of NK receptors on CD8<sup>+</sup> T cells can be considered a marker of cytotoxic effector T cells that are expanded *in vivo* after antigenic activation leading to extensive proliferation. The transcription, mRNA accumulation and surface expression of CD161, a molecule involved in triggering cytotoxicity, is specifically upregulated by IL-12.

## REFERENCES

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2. Nickoloff, B.J., Bonish, B., Huang, B.B. and Porcelli, S.A. 2000. Characterization of a T cell line bearing natural killer receptors and capable of creating psoriasis in a SCID mouse model system. *J. Dermatol. Sci.* 24: 212-225.
3. Carlyle, J.R., Martin, A., Mehra, A., Attisano, L., Tsui, F.W. and Zuniga-Pflucker, J.C. 1999. Mouse NKR-P1B, a novel NK1.1 antigen with inhibitory function. *J. Immunol.* 162: 5917-5923.
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5. Azzoni, L., Zatzepina, O., Abebe, B., Bennett, I.M., Kanakaraj, P. and Perussia, B. 1998. Differential transcriptional regulation of CD161 and a novel gene, 197/15a, by IL-2, IL-15, and IL-12 in NK and T cells. *J. Immunol.* 161: 3493-3500.

## CHROMOSOMAL LOCATION

Genetic locus: KLRB1 (human) mapping to 12p13.31.

## SOURCE

CD161 (N-20) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the N-terminus of CD161 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-17028 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## STORAGE

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

## APPLICATIONS

CD161 (N-20) is recommended for detection of CD161 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 CD161 siRNA (h): sc-42935, CD161 shRNA Plasmid (h): sc-42935-SH and CD161 shRNA (h) Lentiviral Particles: sc-42935-V.

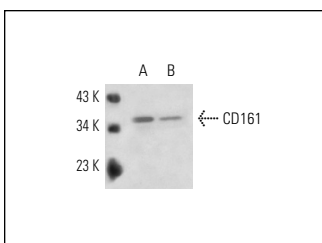
Molecular Weight of CD161: 25 kDa.

Positive Controls: NK-92 whole cell lysate: sc-364788 or human PBL whole cell lysate.

## 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



CD161 (N-20): sc-17028. Western blot analysis of CD161 expression in NK-92 (A) and human PBL (B) whole cell lysates.

## RESEARCH USE

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

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Try **CD161 (HP-3G10): sc-69891**, our highly recommended monoclonal alternative to CD161 (N-20).