

# CD160 (C-16): sc-69452

## BACKGROUND

CD160, also known as NK1, BY55 or NK28, is a 181 amino acid lipid-anchored cell membrane glycoprotein that contains one immunoglobulin-like domain. CD160 is expressed in small intestine, spleen, and functional NK (natural killer) and T cytotoxic lymphocytes. It exists as a disulfide-linked homomultimer that functions as a receptor for MHC (major histocompatibility complex) molecules and is thought to regulate the function of NK cells. Additionally, CD160 interacts with HVEM (herpesvirus entry mediator) and, via this interaction, is able to negatively regulate CD4<sup>+</sup> T cell activation, indicating a role in immune system regulation. Multiple isoforms of CD160 exist due to alternative splicing events. The gene encoding CD160 maps to human chromosome 1, which spans 260 million base pairs, contains over 3,000 genes and comprises nearly 8% of the human genome.

## REFERENCES

1. Maïza, H., et al. 1993. A novel 80 kDa cell surface structure identifies human circulating lymphocytes with natural killer activity. *J. Exp. Med.* 178: 1121-1126.
2. Bensussan, A., et al. 1994. BY55 monoclonal antibody delineates within human cord blood and bone marrow lymphocytes distinct cell subsets mediating cytotoxic activity. *Proc. Natl. Acad. Sci. USA* 91: 9136-9140.
3. Anumanthan, A., et al. 1998. Cloning of BY55, a novel Ig superfamily member expressed on NK cells, CTL, and intestinal intraepithelial lymphocytes. *J. Immunol.* 161: 2780-2790.
4. Agrawal, S., et al. 1999. Cutting edge: MHC class I triggering by a novel cell surface ligand costimulates proliferation of activated human T cells. *J. Immunol.* 162: 1223-1226.
5. Nikolova, M., et al. 2002. BY55/CD160 acts as a co-receptor in TCR signal transduction of a human circulating cytotoxic effector T lymphocyte subset lacking CD28 expression. *Int. Immunol.* 14: 445-451.
6. Online Mendelian Inheritance in Man, OMIM<sup>™</sup>. 2006. Johns Hopkins University, Baltimore, MD. MIM Number: 604463. World Wide Web URL: <http://www.ncbi.nlm.nih.gov/omim/>
7. Giustiniani, J., et al. 2007. A soluble form of the MHC class I-specific CD160 receptor is released from human activated NK lymphocytes and inhibits cell-mediated cytotoxicity. *J. Immunol.* 178: 1293-1300.

## CHROMOSOMAL LOCATION

Genetic locus: CD160 (human) mapping to 1q21.1.

## SOURCE

CD160 (C-16) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the C-terminus of CD160 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-69452 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## APPLICATIONS

CD160 (C-16) is recommended for detection of CD160 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 CD160 siRNA (h): sc-72824, CD160 shRNA Plasmid (h): sc-72824-SH and CD160 shRNA (h) Lentiviral Particles: sc-72824-V.

Molecular Weight of CD160 monomer: 27 kDa.

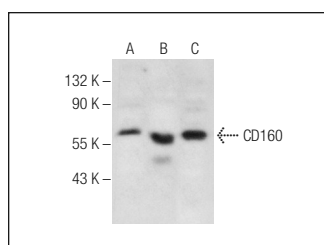
Molecular Weight of CD160 homomultimer: 80 kDa.

Positive Controls: Jurkat whole cell lysate: sc-2204, NK-92 whole cell lysate or CCRF-CEM cell lysate: sc-2225.

## 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<sup>™</sup> compatible donkey anti-goat IgG-HRP: sc-2033 (dilution range: 1:2000-1:5000), Cruz Marker<sup>™</sup> 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<sup>™</sup> Mounting Medium: sc-24941.

## DATA



CD160 (C-16): sc-69452. Western blot analysis of CD160 expression in Jurkat (A), NK-92 (B) and CCRF-CEM (C) whole cell lysates.

## STORAGE

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

## RESEARCH USE

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