SANTA CRUZ BIOTECHNOLOGY, INC.

CD160 (H-105): sc-68909

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. Expressed in small intestine, spleen and functional NK (natural killer) and T cytotoxic lymphocytes, CD160 exists as a disulfide-linked homomultimer that functions as a receptor for MHC (major histocompatability 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 $CD4^+$ 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 kD 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™. 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.
8. Cai, G., et al. 2008. CD160 inhibits activation of human $CD4^+$ T cells through interaction with herpesvirus entry mediator. Nat. Immunol. 9: 176-185.

CHROMOSOMAL LOCATION

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

SOURCE

CD160 (H-105) is a rabbit polyclonal antibody raised against amino acids 30-134 mapping within an internal region of CD160 of human origin.

RESEARCH USE

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

PRODUCT

Each vial contains 200 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

APPLICATIONS

CD160 (H-105) 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).

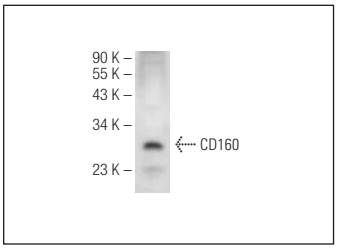
Suitable for use as control antibody for CD160 siRNA (h): sc-72824, CD160 shRNA Plasmid (h): sc-72824-SH and CD160 shRNA (h) Lentiviral Particles: sc-72824-V.

Molecular Weight of CD160 monomer: 27 kDa.

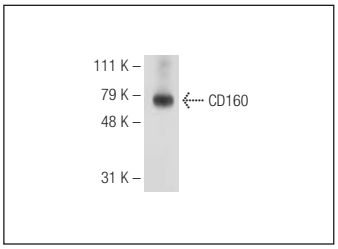
Molecular Weight of CD160 homomultimer: 80 kDa.

Positive Controls: Jurkat whole cell lysate: sc-2204 or mouse spleen extract: sc-2391.

DATA



CD160 (H-105): sc-68909. Western blot analysis of CD160 expression in Jurkat whole cell lysate.



CD160 (H-105): sc-68909. Western blot analysis of CD160 expression in mouse spleen tissue extract.

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.