SANTA CRUZ BIOTECHNOLOGY, INC.

CLEC-5A (C-13): sc-164065

BACKGROUND

The C-type lectin/C-type lectin-like domain (CTL/CTLD) superfamily consists of a variety of proteins that share a common protein fold and have diverse functions, including cell-cell signaling, cell adhesion, glycoprotein turnover and immune responses. CLEC-5A (C-type lectin domain family 5 member A), also known as MDL-1 (Myeloid DAP12-associating lectin) or CLECSF5, is a 188 amino acid single-pass type II membrane protein that contains one C-type lectin domain and belongs to the C-type lectin superfamily. Expressed in peripheral blood monocytes, CLEC-5A is thought to be involved in the proinflammatory activation of myeloid cells, specifically by mediating DAP12 signaling in a calcium-dependent manner. The signaling cascade in which CLEC-5A is involved is associated with dengue hemorrhagic fever and dengue shock syndrome, suggesting a role for CLEC-5A in dengue viral host infection. Multiple isoforms of CLEC-5A exist due to alternative splicing events.

REFERENCES

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2. Bakker, A.B., et al. 1999. Myeloid DAP12-associating lectin (MDL)-1 is a cell surface receptor involved in the activation of myeloid cells. Proc. Natl. Acad. Sci. USA 96: 9792-9796.
3. Yim, D., et al. 2001. Molecular cloning and expression pattern of porcine myeloid DAP12-associating lectin-1. Cell. Immunol. 209: 42-48.
4. Gingras, M.C., et al. 2002. TREM-1, MDL-1, and DAP12 expression is associated with a mature stage of myeloid development. Mol. Immunol. 38: 817-824.
5. Online Mendelian Inheritance in Man, OMIM™. 2002. Johns Hopkins University, Baltimore, MD. MIM Number: 604987. World Wide Web URL: http://www.ncbi.nlm.nih.gov/omim/
6. Ebner, S., et al. 2003. Evolutionary analysis reveals collective properties and specificity in the C-type lectin and lectin-like domain superfamily. Proteins 53: 44-55.
7. Aoki, N., et al. 2004. Differential regulation of DAP12 and molecules associated with DAP12 during host responses to mycobacterial infection. Infect. Immun. 72: 2477-2483.
8. Chen, S.T., et al. 2008. CLEC5A is critical for dengue-virus-induced lethal disease. Nature 453: 672-676.

CHROMOSOMAL LOCATION

Genetic locus: CLEC5A (human) mapping to 7q34.

SOURCE

CLEC-5A (C-13) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an extracellular domain of CLEC-5A of human origin.

STORAGE

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

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-164065 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

CLEC-5A (C-13) is recommended for detection of CLEC-5A of human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), 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 CLEC-5A siRNA (h): sc-89348, CLEC-5A shRNA Plasmid (h): sc-89348-SH and CLEC-5A shRNA (h) Lentiviral Particles: sc-89348-V.

Molecular Weight of CLEC-5A: 22 kDa.

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) 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.

RESEARCH USE

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

PROTOCOLS

See our web site at www.scbt.com or our catalog for detailed protocols and support products.