SANTA CRUZ BIOTECHNOLOGY, INC.

CLEC-9A (E-12): sc-167492



The Power to Question

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-9A (C-type lectin domain family 9 member A), also known as DNGR1 (dendritic cell natural killer lectin group receptor 1), is a 241 amino acid single-pass type II membrane protein that contains one C-type lectin domain and belongs to the CTL/CTLD superfamily. Expressed in myeloid lineage cells, brain, spleen and thymus, CLEC-9A is a group V C-type lectin-like receptor (CTLR) that acts as an activation receptor. The gene encoding CLEC-9A maps to human chromosome 12p13.2 and mouse chromosome 6 F3.

REFERENCES

- Drickamer, K. 1999. C-type lectin-like domains. Curr. Opin. Struct. Biol. 9: 585-590.
- Arce, I., et al. 2001. Molecular and genomic characterization of human DLEC, a novel member of the C-type lectin receptor gene family preferentially expressed on monocyte-derived dendritic cells. Eur. J. Immunol. 31: 2733-2740.
- 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.
- McMahon, S.A., et al. 2005. The C-type lectin fold as an evolutionary solution for massive sequence variation. Nat. Struct. Mol. Biol. 12: 886-892.
- 5. Gijzen, K., et al. 2006. C-type lectins on dendritic cells and their interaction with pathogen-derived and endogenous glycoconjugates. Curr. Protein Pept. Sci. 7: 283-294.
- Huysamen, C., et al. 2008. CLEC9A is a novel activation C-type lectin-like receptor expressed on BDCA3⁺ dendritic cells and a subset of monocytes. J. Biol. Chem. 283: 16693-16701.
- 7. Sancho, D., et al. 2008. Tumor therapy in mice via antigen targeting to a novel, DC-restricted C-type lectin. J. Clin. Invest. 118: 2098-2110.
- 8. Sancho, D., et al. 2009. Identification of a dendritic cell receptor that couples sensing of necrosis to immunity. Nature 458: 899-903.
- 9. Online Mendelian Inheritance in Man, OMIM[™]. 2009. Johns Hopkins University, Baltimore, MD. MIM Number: 612252. World Wide Web URL: http://www.ncbi.nlm.nih.gov/omim/

CHROMOSOMAL LOCATION

Genetic locus: CLEC9A (human) mapping to 12p13.2.

SOURCE

CLEC-9A (E-12) is an affinity purified goat polyclonal antibody raised against a peptide mapping within a C-terminal extracellular domain of CLEC-9A of human origin.

RESEARCH USE

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

PRODUCT

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

Blocking peptide available for competition studies, sc-167492 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

CLEC-9A (E-12) is recommended for detection of CLEC-9A 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); non cross-reactive with other CLEC family members.

Suitable for use as control antibody for CLEC-9A siRNA (h): sc-95810, CLEC-9A shRNA Plasmid (h): sc-95810-SH and CLEC-9A shRNA (h) Lentiviral Particles: sc-95810-V.

Molecular Weight of CLEC-9A: 27 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) Immunofluo-rescence: 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.

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.