DCL-1 (FL-232): sc-134901



The Power to Question

BACKGROUND

DCL-1, also known as CD302, CLEC13A (C-type lectin domain family 13 member A) or C-type lectin BIMLEC, is a 232 amino acid single-pass type I membrane protein involved in endocytosis, phagocytosis, cell adhesion and migration. A C-type lectin receptor, DCL-1 is widely expressed with highest expression found in peripheral blood, myeloid and B lymphoid cell lines, liver, ovary and lung. DCL-1 undergoes alternative splicing to produce three isoforms designated DCL-1 isoform 1, isoform 2 (also known as fusion protein variant V34-2) and isoform 3 (also designated fusion protein variant V33-2); DCL-1 isoforms 2 and 3 are produced in malignant lympoma cells known as Hodgkin and Reed-Sternberg (HRS) cells. DCL-1 contains one C-type lectin domain and is encoded by a gene that maps to human chromosome 2q24.2. A number of genetic diseases are linked to genes on chromosome 2 including Harlequin icthyosis, sitosterolemia and Alström syndrome.

REFERENCES

- Nomura, N., et al. 1994. Prediction of the coding sequences of unidentified human genes. I. The coding sequences of 40 new genes (KIAA0001-KIAA0040) deduced by analysis of randomly sampled cDNA clones from human immature myeloid cell line KG-1. DNA Res. 1: 27-35.
- Patel, S.B., et al. 1998. Mapping a gene involved in regulating dietary cholesterol absorption. The sitosterolemia locus is found at chromosome 2p21. J. Clin. Invest. 102: 1041-1044.
- Zumsteg, U., et al. 2000. Alstrom syndrome: confirmation of linkage to chromosome 2p12-13 and phenotypic heterogeneity in three affected sibs. J. Med. Genet. 37: E8.
- Kato, M., et al. 2003. Hodgkin's lymphoma cell lines express a fusion protein encoded by intergenically spliced mRNA for the multilectin receptor DEC-205 (CD205) and a novel C-type lectin receptor DCL-1. J. Biol. Chem. 278: 34035-34041.
- Kelsell, D.P., et al. 2005. Mutations in ABCA12 underlie the severe congenital skin disease harlequin ichthyosis. Am. J. Hum. Genet. 76: 794-803.
- Kato, M., et al. 2007. The novel endocytic and phagocytic C-Type lectin receptor DCL-1/CD302 on macrophages is colocalized with F-Actin, suggesting a role in cell adhesion and migration. J. Immunol. 179: 6052-6063.
- 7. Online Mendelian Inheritance in Man, OMIM™. 2008. Johns Hopkins University, Baltimore, MD. MIM Number: 612246. World Wide Web URL: http://www.ncbi.nlm.nih.gov/omim/

CHROMOSOMAL LOCATION

Genetic locus: CD302 (human) mapping to 2q24.2; Cd302 (mouse) mapping to 2 C1.1.

SOURCE

DCL-1 (FL-232) is a rabbit polyclonal antibody raised against amino acids 1-232 representing full length DCL-1 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.

APPLICATIONS

DCL-1 (FL-232) is recommended for detection of DCL-1 of mouse, rat and 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 DCL-1 siRNA (h): sc-94620, Cd302 siRNA (m): sc-142196, DCL-1 shRNA Plasmid (h): sc-94620-SH, Cd302 shRNA Plasmid (m): sc-142196-SH, DCL-1 shRNA (h) Lentiviral Particles: sc-94620-V and Cd302 shRNA (m) Lentiviral Particles: sc-142196-V.

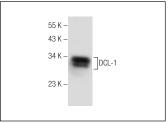
Molecular Weight of DCL-1: 26 kDa.

Positive Controls: Hep G2 cell lysate: sc-2227.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible goat anti-rabbit IgG-HRP: sc-2030 (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 goat anti-rabbit IgG-FITC: sc-2012 (dilution range: 1:100-1:400) or goat anti-rabbit IgG-TR: sc-2780 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

DATA



DCL-1 (FL-232): sc-134901. Western blot analysis of DCL-1 expression in Hep G2 whole cell lysate.

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.