LSECtin (L-18): sc-70177



The Power to Question

BACKGROUND

Liver and lymph node sinusoidal endothelial C-type lectin (LSECtin), also designated C-type lectin superfamily 4 member G (CLEC4G), is a member of the family of proteins which comprise CD23, DC-SIGN, and DC-SIGNR. LSECtin is a type II transmembrane glycoprotein that may function as a lectin receptor *in vivo*. The LSECtin protein binds mannose, glcNAC, L-fucose in a Ca²⁺dependent manner, but does not bind galactose or high mannose glycans. It also functions as an attachment factor for viral pathogens, possibly working together with DC-SIGNR to concentrate viral pathogens in lymph nodes and liver. The LSECtin gene is within the same cluster as CD23, DC-SIGN and DC-SIGNR and maps to chromosome 19p13.2.

REFERENCES

- Liu, W., et al. 2004. Characterization of a novel C-type lectin-like gene, LSECtin: demonstration of carbohydrate binding and expression in sinusoidal endothelial cells of liver and lymph node. J. Biol. Chem. 279: 18748-18758.
- 2. Gramberg, T., et al. 2005. LSECtin interacts with filovirus glycoproteins and the spike protein of SARS coronavirus. Virology 340: 224-236.
- Koppel, E.A., et al. 2005. Distinct functions of DC-SIGN and its homologues L-SIGN (DC-SIGNR) and mSIGNR1 in pathogen recognition and immune regulation. Cell. Microbiol. 7: 157-165.
- Dakappagari, N., et al. 2006. Internalizing antibodies to the C-type lectins, L-SIGN and DC-SIGN, inhibit viral glycoprotein binding and deliver antigen to human dendritic cells for the induction of T cell responses. J. Immunol. 176: 426-440.
- Lo, A.W., et al. 2006. How the SARS coronavirus causes disease: host or organism? J. Pathol. 208: 142-151.
- Kuhn, J.H., et al. 2006. Conserved receptor-binding domains of Lake Victoria marburgvirus and Zaire ebolavirus bind a common receptor. J. Biol. Chem. 281: 15951-15958.

CHROMOSOMAL LOCATION

Genetic locus: CLEC4G (human) mapping to 19p13.2.

SOURCE

LSECtin (L-18) is an affinity purified goat polyclonal antibody raised against a peptide mapping within a C-terminal extracellular domain of LSECtin of human origin.

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-70177 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

STORAGE

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

APPLICATIONS

LSECtin (L-18) is recommended for detection of LSECtin 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 LSECtin siRNA (h): sc-72109, LSECtin shRNA Plasmid (h): sc-72109-SH and LSECtin shRNA (h) Lentiviral Particles: sc-72109-V.

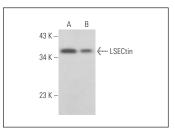
Molecular Weight of LSECtin: 33 kDa.

Positive Controls: human liver extract: sc-363766 or HeLa whole cell lysate: sc-2200.

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) 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™ Mounting Medium: sc-24941.

DATA



LSECtin (L-18): sc-70177. Western blot analysis of LSECtin expression in human liver tissue extract (A and HeLa whole cell lysate (B).

RESEARCH USE

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



Try **LSECtin (SOTO-1): sc-65478**, our highly recommended monoclonal alternative to LSECtin (L-18).

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