

LSECTin (SOTO-1): sc-65478

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 includes 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, galNAc and 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.
- 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.

CHROMOSOMAL LOCATION

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

SOURCE

LSECTin (SOTO-1) is a mouse monoclonal antibody raised against recombinant LSECTin of human origin.

PRODUCT

Each vial contains 200 µg IgG_{2a} lambda light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

LSECTin (SOTO-1) is available conjugated to agarose (sc-65478 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-65478 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-65478 PE), fluorescein (sc-65478 FITC), Alexa Fluor® 488 (sc-65478 AF488), Alexa Fluor® 546 (sc-65478 AF546), Alexa Fluor® 594 (sc-65478 AF594) or Alexa Fluor® 647 (sc-65478 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-65478 AF680) or Alexa Fluor® 790 (sc-65478 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

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APPLICATIONS

LSECTin (SOTO-1) is recommended for detection of LSECTin of human origin by immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)] and flow cytometry (1 µg per 1 x 10⁶ cells).

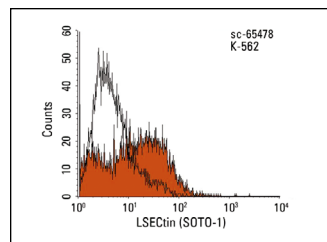
Suitable for use as control antibody for LSECTin siRNA (h): sc-72109, LSECTin shRNA Plasmid (h): sc-72109-SH and LSECTin shRNA (h) Lentiviral Particles: sc-72109-V.

Molecular Weight of LSECTin: 33 kDa.

RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended:
1) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml).

DATA



LSECTin (SOTO-1): sc-65478. FCM analysis of K-562 cells transfected with L-Sectin showing strain specificity of LSECTin (SOTO-1) followed by PE-conjugated goat anti-mouse IgG: sc-3738. Black line histogram represents the isotype control, normal mouse IgG_{2a}: sc-3878.

SELECT PRODUCT CITATIONS

- Shimajima, M., et al. 2014. Distinct usage of three C-type lectins by Japanese encephalitis virus: DC-SIGN, DC-SIGNR, and LSECTin. *Arch. Virol.* 159: 2023-2031.
- Suda, Y., et al. 2016. Analysis of the entry mechanism of Crimean-Congo hemorrhagic fever virus, using a vesicular stomatitis virus pseudotyping system. *Arch. Virol.* 161: 1447-1454.
- Tani, H., et al. 2016. Characterization of glycoprotein-mediated entry of severe fever with thrombocytopenia syndrome virus. *J. Virol.* 90: 5292-5301.
- Shimajima, M., et al. 2020. Efficient functional screening of a cellular cDNA library to identify severe fever with thrombocytopenia syndrome virus entry factors. *Sci. Rep.* 10: 5996.
- Suzuki, T., et al. 2020. Severe fever with thrombocytopenia syndrome virus targets B cells in lethal human infections. *J. Clin. Invest.* 130: 799-812.

STORAGE

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

RESEARCH USE

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