# SANTA CRUZ BIOTECHNOLOGY, INC.

# LSECtin (E-20): sc-70175



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 Ca<sup>2+</sup>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

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- 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.
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- 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.
- Powlesland, A.S., et al. 2006. Widely divergent biochemical properties of the complete set of mouse DC-SIGN-related proteins. J. Biol. Chem. 281: 20440-20449.
- Du, X.M., et al. 2006. Preparation and characterization of monoclonal antibody against human LSECtin. Xi Bao Yu Fen Zi Mian Yi Xue Za Zhi 22: 517-520.
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### CHROMOSOMAL LOCATION

Genetic locus: Clec4g (mouse) mapping to 8 A1.1.

## SOURCE

LSECtin (E-20) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an extracellular domain of LSECtin of mouse origin.

## PRODUCT

Each vial contains 200  $\mu g$  lgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-70175 P, (100  $\mu$ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

### **APPLICATIONS**

LSECtin (E-20) is recommended for detection of LSECtin of mouse and rat 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).

LSECtin (E-20) is also recommended for detection of LSECtin in additional species, including porcine.

Suitable for use as control antibody for LSECtin siRNA (m): sc-72110, LSECtin shRNA Plasmid (m): sc-72110-SH and LSECtin shRNA (m) Lentiviral Particles: sc-72110-V.

Molecular Weight of LSECtin: 33 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-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.

#### **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.