SANTA CRUZ BIOTECHNOLOGY, INC.

SP-D (IVG8): sc-52731

BACKGROUND

Pulmonary surfactant is primarily responsible for lowering the surface tension at the air-liquid interface in the alveoli, a process that is essential for normal respiration. Pulmonary surfactant is a mixture of phospholipids and proteins, including four distinct surfactant-associated proteins (SPs), SP-A, SP-B, SP-C, SP-D. SP-B and SP-C are predominantly hydrophobic proteins that associate with lipids to promote the absorption of surfactant phospholipids and to reduce the surface tension in the alveoli. SP-A and SP-D are large multimeric proteins belonging to the family of calcium-dependent lectins, designated collectins, which contribute to the innate immune system. Both SP-A and SP-D have been shown to protect against microbial challenge through binding to the lipid components of the bacterial cell wall and facilitating the rapid removal of microbials.

REFERENCES

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3. Johansson, J. Jornvall, H. and Curstedt, T. 1992. Human surfactant polypeptide SP-B. Disulfide bridges, C-terminal end and peptide analysis of the airway form. FEBS Lett. 301: 165-167.
4. Crouch, E., Rust, K., Veile, R., Donis-Keller, H. and Grosso, L. 1993. Genomic organization of human surfactant protein D (SP-D). SP-D is encoded on chromosome 10q22.2-23.1. J. Biol. Chem. 268: 2976-2983.
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CHROMOSOMAL LOCATION

Genetic locus: SFTPD (human) mapping to 10q22.3; Sftpd (mouse) mapping to 14 B.

SOURCE

SP-D (IVG8) is a mouse monoclonal antibody raised against SP-D of rat origin.

PRODUCT

Each vial contains 100 µg IgG_1 in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

APPLICATIONS

SP-D (IVG8) is recommended for detection of SP-D of mouse, rat and 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 immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500).

Suitable for use as control antibody for SP-D siRNA (h): sc-36541, SP-D siRNA (m): sc-36542, SP-D shRNA Plasmid (h): sc-36541-SH, SP-D shRNA Plasmid (m): sc-36542-SH, SP-D shRNA (h) Lentiviral Particles: sc-36541-V and SP-D shRNA (m) Lentiviral Particles: sc-36542-V.

Molecular Weight of SP-D: 43 kDa.

Positive Controls: rat lung extract: sc-2396 or human lung extract: sc-363767.

SELECT PRODUCT CITATIONS

1. Li, S., Li, Y., Zhang, Y., Li, S., Zhang, M., Jin, F., Wei, Z., Yang, Y., Gao, X., Mao, N., Ge, X., Xu, H. and Yang, F. 2020. N-Acetyl-Seryl-Asparyl-Lysyl-Proline regulates lung renin angiotensin system to inhibit epithelial-mesenchymal transition in silicotic mice. Toxicol. Appl. Pharmacol. 408: 115255.

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 for detailed protocols and support products.