

SP-D (IIE11): sc-59698

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 and 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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CHROMOSOMAL LOCATION

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

SOURCE

SP-D (IIE11) is a mouse monoclonal antibody raised against full length native SP-D of rat origin.

PRODUCT

Each vial contains 50 µg IgG_{2b} in 500 µl PBS with < 0.1% sodium azide and 0.1% gelatin.

APPLICATIONS

SP-D (IIE11) 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), immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000); non cross-reactive with SP-A.

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.

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.