

SP-B (3F340): sc-73048

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: SFTPB (human) mapping to 2p11.2; Sftpb (mouse) mapping to 6 C1.

SOURCE

SP-B (3F340) is a mouse monoclonal antibody raised against full length SP-B of human origin.

PRODUCT

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

APPLICATIONS

SP-B (3F340) is recommended for detection of SP-B of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for SP-B siRNA (h): sc-36537, SP-B siRNA (m): sc-36538, SP-B shRNA Plasmid (h): sc-36537-SH, SP-B shRNA Plasmid (m): sc-36538-SH, SP-B shRNA (h) Lentiviral Particles: sc-36537-V and SP-B shRNA (m) Lentiviral Particles: sc-36538-V.

Molecular Weight of SP-B precursor: 43 kDa.

Molecular Weight of mature SP-B: 9 kDa.

Positive Controls: WI-38 whole cell lysate: sc-364260, Raji whole cell lysate: sc-364236 or mouse lung extract: sc-2390.

RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended:
1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048.

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.